

Ms. Bonnie Hriczko Removal Action Branch US Environmental Protection Agency, Region II 2890 Woodbridge Avenue, MS-211 Edison, NJ 08837

Re: Request For Information

Superior Barrel and Drum Site, Elk, Gloucester County, NJ

Dear Ms. Hriczko:

Enclosed is our response to subject Request For Information. A copy of the response is being sent to Mr. William Tucker, Esq. at the Office of Regional Counsel.

Sincerely,

Daniel A. Rowan

CFO

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

Superior Barrel and Drum Site, Elk, Gloucester County, New Jersey

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I certify under penalty of law that I			
information submitted in this docu	ment (response t	to EPA Request	for Information)
all documents submitted herewith	, and that based	on my inquiry o	f those individual
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State of New Krsey

and immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that I am under a continuing obligation to supplement my response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or my response thereto should become known or available to me.

NAME (print or type)

TITLE (print or type)

Sworn to before me this 27 day of Feb, 2014



RESPONSES TO QUESTIONS CONCERNING SUPERIOR BARREL AND DRUM (SBD)

1a: Ocean Yachts Inc.

1b: New Jersey Corporation

1c: John E. Leek, III 736 West Moss Mill Road Egg Harbor City, NJ 08215 Daniel A. Rowan 29 Greens Way Blackwood, NJ 08012

1d: None

1e: None

1f: From 1987 - 1991, Facility 2 was operated by Ocean Yachts II, Inc. ("OYII"), a different legal entity from Ocean Yachts, Inc. ("Company"). This is further explained in our answer to question 4b.

2a: Company manufactures & repairs fiberglass recreational vessels. Boats are sold through dealers nationally & internationally. Company was formed in 1977.

2b: Since organized, Company has manufactured and repaired fiberglass recreational vessels. Raw materials purchased in drums consist of: gel-coat, vinylester resin, polyester resin, methacrylate adhesives, and acetone. Material Safety Data Sheets for these chemicals are enclosed. Also enclosed are the chemical composition sections of the Material Safety Data Sheets for all other chemicals used. Company empties the drums in accordance with the provisions of EPA Regulations 40CFR 261.7(2)(b) ("empty") and stores them in a designated area until enough empty drums are accumulated for SBD to pick up. SBD required Company to empty all drums prior to transfer to SBD. If there is a drum that still has residual contents such as gel-coat, resin, or methacrylate that needs to be discarded we catalyze the material until hardened and then discard the material. See our response to question 9 for a further explanation of how Company empties the drums.

Acetone used for wiping/cleaning fiberglass surfaces is used until the drum is empty. Acetone used for cleaning resin or gel-coat application equipment is stored in marked containers. We

hire a third party to come in and recycle this acetone. Any residual waste is stored in labeled containers and then picked up by a hazardous waste removal company.

Other materials necessary to the construction of boats include various paints, epoxies, varnishes, and adhesives. We use these materials in small quantities and they are delivered in small containers, not drums. If there is residual material we catalyze and harden it and then dispose of it. If there are materials that can't be disposed of that way we store them in a designated area until we have a hazardous waste removal company come pick them up. SBD did not remove waste of any of these materials for Company.

Copies of Hazardous Waste Manifests are provided for sources who disposed of residual waste material. None of those materials were transported to the Site. Manifests are available from 2005 to present. In addition, 2 manifests from 1987, one from 1988, and one from 2001 were located and are provided.

All hazardous substances were and are handled in accordance with the Ocean Yachts HCS Written Program, the various Emergency, Spill, and Fire Response Plans, and the Hazardous Waste Training Program. A copy of the latest version of the HCS Written Program and a Facility Layout are provided herein.

3a: Company conducted business with SBD for disposal of empty 55 gallon drums in accordance with the procedures described in our answer to 2b above.

3b: Facility 1

Facility 2

2713 Green Bank Road

901 Duerer Street

Egg Harbor City, NJ 08215

Egg Harbor City, NJ 08215

SBD disposed of empty 55 gallon drums for Company as a trade vendor.

3c: There have never been any contracts or agreements between Company and SBD.

4a: Facility 1 - boatbuilding & repairing, 1977 - present Facility 2 - boatbuilding, approximately 1997 - 2009

4b: Ocean Yachts Inc.

Ocean Yachts Inc.

Facility 1

Facility 2

2713 Green Bank Road

901 Duerer Street

Egg Harbor City, NJ 08215

Egg Harbor City, NJ 08215

RCRA #NJD087092391

RCRA #NJD184807311

Facility 2 was constructed in 1987 by OYII, incorporated May 4, 1987 in NJ, as a different legal entity than Company. OYII operated in the boatbuilding business from 1987 until June 1991 when it closed and was subsequently formally dissolved. Company operated in Facility 2 from approximately 1997 until 2009. During the period that Company operated in Facility 2 it used the same RCRA Number that OYII had used, which number is listed above as the RCRA Number

for Facility II.

- 5a 5e: See enclosed spreadsheet "Transactions Between Ocean Yachts and SBD" which contains all transactions for which records of identifiable empty drum transfers to SBD are available. Company ceased doing business with SBD in 2011. For 5e, see also our answers to questions 2b, 8 and 9.
- 6: Documents are enclosed for transactions back to 2004. Those documents include empty drum transfer vouchers/payment vouchers from SBD and certain invoices from SBD issued when SBD did not receive a check from Ocean Yachts Inc. at the time of transfer. These are all of the transfer documents available as our practice is to dispose of such records after approximately 7 years.
- 7: Employees Daniel Rowan, John Leek III, John Leek IV and Robert Phillips have knowledge of transactions with SBD.
- 8a: The only substances that would have been in the drums that SBD picked up from Company were resin, gel-coat, acetone, and methacrylate (Plexus). The drums that SBD picked up from Company were always empty. SBD would not accept any drums that were not empty.
- 8b. See enclosed MSDS sheets for polyester resin, vinylester resin, gel-coat, acetone, and methacrylate (Plexus).
- 9. Company uses the same emptying process for containers of all sizes and all chemical contents because it is economically prudent to use all of the material and to minimize the amount of materials that must be handled as hazardous waste.

Our primary method of using resin and gel-coat is to pump it out of the drums using our resin and gel-coat application equipment. Any quantity that the apparatus can't reach with the pump is poured out by hand into a small container and then used by hand. In certain cases, resin or gel-coat may be poured from the drum using a special spigot that threads into the drum cap. The result is the same, the resin or gel-coat is poured out until the drum is empty. In the event that there is any residual material we catalyze and harden the material in a small container and then discard.

Acetone is pumped from drums using a hand pump to remove as much acetone as possible. Then the drum is tipped to pour residual acetone into a small storage container until the drum is empty.

Drums of methacrylate (Plexus) are lined with plastic. Any residual material not able to be pumped out by the methacrylate adhesive apparatus is contained by the plastic drum liners. These liners are then removed and the residual material is catalyzed by hand until hardened and then discarded.

10: None.

11: Employees John Leek III, John Leek IV and Daniel Rowan were consulted on, and reviewed the answers to all questions.

The following person was consulted in general concerning the Request For Information:

Daniel H. Thompson Berger Singerman 125 South Gadsen ST, Suite 300 Tallahassee, FL 32301

12. The following former employee was responsible for administering the hazardous waste program and the required reporting.

Robert Fink, Human Resources Manager



Mr. Fink was employed by Company from 1984 - 2009.

The following person and company provided services coordinating the removal of waste:

Bob Jones QDS 105 Antes Lane Coatsville, PA 19320 610-384-8690

13. Company is not aware of of any sources besides SBD that transported containers to the Site.

Material Safety Data Sheet: Acetone

Product # 10300

Page 1 of 3 29 CFR 1910.1200

SECTION I - Manufacturer/Distributor's Information

Manufacturer: Address

Research Solvents and Chemicals, Inc. 402 Industrial Park Dr. Pelham, AL 35124

Phone:

(205) 663-6350 or (615) 793-6737

Emergency Phone: Date Prepared:

CHEMTREC: (800) 424-9300

09/09/96

RESEARCH: (615) 793-6737

Date Revised: 11/22/10

**HMIS Rating Health -1 Flammability -3

Reactivity -0

SECTION II - Hazardous Components of Mixture

The precise composition of this product is proprietary information. In the event of a medical emergency a complete disclosure will be provided to medical personnel....

Components 2-Propanone

CAS# 67-64-1 **OSHA PEL** 1000 ppm

ACGIH TLV

750 ppm

Boiling Point:

SECTION III - Physical Characteristics 56°C (133°F)

184 minHg @ 20°C

Vapor Pressure: Vapor Density:

2 (air =1)

Specific Gravity: **Evaporation Rate:** 0.79

Solubility in Water:

11.6 (butyl acetate =1)

Complete

Appearance and Odor:

Clear, colourless liquid; strong ketone odor

%VOC's (by weight):

SECTION IV - Fire and Explosion Data

Flash Point:

-0.4°F (-18°C), TCC

Lower Flammable Level: Upper Flammable Level:

25% 12.8%

Extinguishing Media:

Water fog, foam, CO2, dry chemical.

Special Fire Fighting Procedures: Use self-contained breathing apparatus and full bunker gear in fire areas.

Evacuate all unprotected personnel from area. Keep containers cool with water fog to

minimize swelling taking care not to spread flames with water used for cooling.

Unusual Fire Fighting Hazards: Product is extremely flammable and may be ignited by heat, sparks, flames or other sources of ignition (i.e. static electricity, pilot lights, or mechanical/electrical equipment). Vapors may travel considerable distances to a source of ignition where they can ignite, flashback, or explode. May create vapor/air explosion hazard indoors, outdoors, or in sewers. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can explode in the heat of a fire. May create a floating fire hazard.

SECTION V - Stability

Stability:

Conditions to Avoid:

Extreme heat and ignition sources

incompatibilities (materials to avoid): Hazardous Decomposition or Byproducts: Strong oxidizers, acids and halogenated compounds CO, CO2, and various hydrocarbons under combustion

conditions.

Hazardous Polymerization:

Polymerization Conditions to Avoid:

Will not occur

None

Interplastic Corporation - 1225 Willow Lake Blvd Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Revision Date: 10/30/08 Date Printed: 12/11/00 MSDS File id: MSDSLT02

Customer No:
Whse No: 0003

This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard)

I, IDENTIFICATION

Product Name: Acetone:

Common Name: 2-Propanone; Dimethyl ketone

Formula: CH3COCH3

II. INGREDIENTS AND RECOMMENDED OCCUPATIONAL EXPOSURE LIMITS

Component: Acetone

% Weight: Approx. 100 Cas. No.: 67-64-1

Exposure Limits: OSHA-PEL: TWA-750 ppm; STEL-1000 ppm

ACGIH-TLV: TWA-750 ppm; STEL-1000 ppm

Oral LD50: 5800 mg/kg (rat) Dermal LD50: 20 gm/kg (rabbit)

HAZARD DATA - DANGER!

Extremely Flammable Liquid and Vapor. May cause eye, skin, and upper respiratory tract irritation.

INGREDIENT HAZARD INFORMATION

Acetone is identified as a SARA Section 313 chemical. _____

III. PHYSICAL DATA

Boiling Point (Deg. F): 133 Melting Point (Deg. F): -138

Vapor Pressure (mm Hg.) @ 20 Deg. C: 180

Vapor Density (AIR=1): 2.00

Appearance and Odor: Colorless liquid; pungent odor

Specific Gravity (H2O=1) @ 25 Deg./25: 0.790 Evaporation Rate (n-BuAc=1.0): 5.6 Fast

pH: Not Applicable

Solubility in Water: Complete

IV. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) 15 Deg. F (Open Cup) Flammable Limits:

Lel: 2.6% Uel: 12.8%

EXTINGUISHING MEDIA

Carbon dioxide or dry chemicals; large fires - "alcohol type" foam. Water may be ineffective, but should be used to keep fire and exposed containers cool.

SPECIAL FIRE FIGHTING PROCEDURES Water spray or fog, jet stream may spread fire. Firefighters should wear self-contained breathing equipment and protective clothing.

UNUSUAL FIRE AND EXPLOSION PROCEDURES Vapors are heavier than air and may travel to distant ignition sources.

V. REACTIVITY DATA

Stable: Yes

Unstable: No

Conditions to Avoid: Strong oxidizing agents

INCOMPATIBILITY (Materials to Avoid) Oxidizing agents, ignites when reacted with potassium tertbutoxide.

HAZARDOUS DECOMPOSITION PRODUCTS Carbon monoxide, carbon dioxide, organic acids.

Polymerization May Occur or Will Not Occur:

CONDITIONS TO AVOID: None

VI. SPILL OR LEAK PROCEDURES

TRANSPORTATION EMERGENCIES Call CHEMTREC 800-424-9300

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike with sand or earth. Prevent from entering sewers or waterways, remove heat, and ignition sources. Absorb with sand or earth and place in covered and labeled drum. Acetone is on the CERCLA hazardous substance list of 1980, as amended, and reportable spills must be reported to the National Response Center.

In case of release to the environment, report spills to 800-424-8802, The National Response Center.

WASTE DISPOSAL METHOD:

Dispose of in accordance with local, state and federal regulations.

VII. HEALTH HAZARD DATA

MAJOR EXPOSURE HAZARDS

Inhalation: Yes
Skin Contact: Yes
Eye Contact: Yes

Ingestion: No

EFFECTS OF OVEREXPOSURE:

INHALATION: High vapor concentrations may irritate the eyes and mucous membranes of the nose and throat. Severe overexposure (i.e. >12,000 ppm) can cause Central Nervous System depression including nausea, vomiting, headache, incoordination and dizziness.

SKIN CONTACT: Repeated or prolonged contact of the liquid with the skin can cause redness and a dry, scaly and fissured dermatitis.

EYE CONTACT: Eye contact resulting from splashes or high vapor concentration exposures is irritating. When acetone was absorbed systemically, it caused cataracts in some laboratory animals.

INGESTION: Effects are intoxicating. These acute symptoms might include early emotional instability, impaired motor coordination, nausea, vomiting, drowsiness, stupor and finally coma. Ten to 20 ml has been taken orally without ill effect.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with chronic respiratory disorders (i.e., asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any fume or airborne particulate matter exposure. Persons with pre-existing skin disorders may be more susceptible to dermatitis.

CARCINOGENICITY: Not Applicable

NTP: IARC: OSHA:

OTHER COMMENTS: The health hazards associated with acetone are considered to be relatively low. No reports were seen in the literature that implicated acetone as a carcinogen, mutagen or reproductive toxin.

VIII. EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure. If breathing has stopped or is difficult, administer artificial respiration (mouth-to-mouth) or oxygen as indicated. Call a physician.

SKIN CONTACT: Remove contaminated clothing. Wash skin thoroughly with soap and plenty of water. Call a physician.

EYE CONTACT: Flush with large amounts of water for at least 15 minutes. Call a physician.

INGESTION: For large amounts, give 1-2 glasses of milk or water. Induce vomiting by touching finger to the back of throat. Never give anything by mouth to an unconscious person.

IX. SPECIAL PROTECTION INFORMATION

RESPIRATORY: NIOSH/MSHA approved organic vapor respirator should be used to avoid excessive inhalation. Appropriate respirator selection depends on magnitude and type of exposure.

SKIN: Natural rubber or butyl rubber gloves should be used to prevent skin contact. Where employees may be splashed, polyethylene protective aprons or clothing should be provided. A face shield should be used to prevent facial contact.

EYE: Employees should be required to wear chemical safety glasses to prevent eye contact.

VENTILATION: Local exhaust ventilation should be used to control the build-up of air contaminants. General dilution ventilation may help to reduce air contaminant concentrations.

OTHER PROTECTIVE EQUIPMENT: An eyewash station and deluge safety shower should be available in the work area. Moisturizing creams can be used to prevent excessive drying of the skin.

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Extremely flammable, keep away from heat, sparks, and fire. Keep container closed. Store away from oxidizers. Bond and ground containers for transfers of this product to prevent static sparks.

X. REGULATORY STATUS

TSCA STATUS: This product (or its ingredients if it is a mixture) appears on the Toxic Substances Control Act Inventory (TSCA).

SARA HAZARD CATEGORIES (Section 311 and Section 312):

Reactivity: No
Immediate Health: Yes
Pressure: No

Delayed Health: Yes

Fire: No

SARA Section 313: See Section II, Ingredient Hazard Statement.

DOT SHIPPING NAME: Acetone

DOT HAZARD CLASS: Flammable Liquid

IDENTIFICATION NUMBER: UN 1090

HMIS RATINGS (Hazardous Materials Identification System,

Scale 0-4):

Health: 1

Flammability: 3

Reactivity: 0

NFPA RATINGS (National Fire Protection Association, Scale

Health: 1

Flammability: 3

Reactivity: 0

ITW Plexus

Material Safety Data Sheet

Page

Part No.: 0505

MA 556 ADHESIVE

This product appears in the following stock number(s):

ITISO (TIS

Lest revised:

กา/วก/กก

Printed:

4/7/2000

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename:

MA 556 ADHESIVE

General use:

Adhesive. Refer to the regulatory notes in Section 15 for additional VOC information.

Chemical family:

Crylate

MANUFACTURER:

ITW Plexus

30 Endicott St.

Denvers, Massachusetta 01923

EMERGENCY INFORMATION

Emergency telephone number

(CHEMTREO):

(800) 424-6300

Other Calls:

(978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS			· · · · · · · · · · · · · · · · · · ·	Exp	posure limits	
Constiluent	Abbra	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Isopropanol	IPA	67630	<1	400 ppm	400 ppm	400 ppm (Canada)
Methacrylic acid	MAA	79414 (LM-(1-)	<5	20 ppm	20 ppm	4 ppm (Manufacturer)
Methyl Methacrylate Monomer	MMA	80626	> 80	100 ppm	100 ppm	100 ppm (Canada)

"ILV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise nored) established by the American Conference of Governmental Industrial Hygienists. "ISTEL" indicates a short-term exposure limit. "PEL" indicates that no exposure limit has been established. An astarish (*) indicates a substance whose identity is a trade secont of our applier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor, Off-white paste with odor.

WARNING! Flammable. Overexposure to liquid, mist or vapor may have the following effects: EYE AND SKIN EXPOSURE: Intrant and potential skin sensitizer. May cause redness, Itching, burning, rash, RESPIRATORY EXPOSURE: Irritant. May cause headache, nausea, dizziness, fatigue, drowsiness. Avoid breathing vapor. Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally. Keep away from heat, sparks, open flames.

MSDSOSK

ITW Plexus **Material Safety Data Sheet** Part No.: 0984 Page 1 MA 555 ADHESIVE This product appears in the following stock number(s): IT160 IT162 Last revised: 07/17/97 Printed: 12/29/1998 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION Tradename: MA 555 ADHESIVE General use: Adhesive. Refer to the regulatory notes in Section 15 for additional VOC Information. Chemical family: Acrylate MANUFACTURER EMERGENCY INFORMATION **ITW Plexus** Emergency telephone number 30 Endloott St. (CHEMTREC): (800) 424-9300 Danvers, Massachusetts 01923 Other Calls: (978) 777-1100 2. COMPOSITION/INFORMATION ON INGREDIENTS HAZARDOUS CONSTITUENTS Exposure limits Constituent Abbr. CAS No. Weight ACGIH OSHA Other TLV PEL Limits percent Methacrylic acid MAA 79414 1-10 20 ppm 20 ppm 4 ppm (Manufacturer) Methyl Methacrylate Monomer MMA 80626 100 ppm 40-70 100 ppm 100 ppm (Canada) "TLV" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) catablished by the American Conference of Governmental Industrial Hygienists. "STBL" indicates a short-term exposure limit. "FEL" indicates the OSHA Permissible Exposure Limit, "n/o" indicates that no exposure limit has been established. An amorisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us. 3. HAZARDS IDENTIFICATION Emergency Overview Appearance, form, odor: Off-white paste with varied fragrant odor. WARNING! Flammable. Overexposure to liquid, mist or vapor may have the following effects: EYE AND SKIN

WARNING! Flammable. Overexposure to liquid, mist or vapor may have the following effects: EYE AND SKIN EXPOSURE: Imitant and potential skin sensitizer. May cause redness, litching, burning, rash. RESPIRATORY EXPOSURE: Imitant. May cause headache, nausea, dizziness, fatigue, drowslness. Avoid breathing vapor. Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally. Keep away from heat, sparks, open flames.

M80S0819

ITW Plexus

Material Safety Data Sheet

Part No.: 0982

Page 1

MA 425 ADHESIVE

This product appears in the following stock number(s):

IT150 IT151 IT162 IT156

Last revised:

01/13/99

Printed:

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename:

MA 425 ADHESIVE

General use:

Adhesive

Chemical family:

Acrylate

MANUFACTURER

ITW Plexus

30 Endicott St.

Danyers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number

(CHEMTREC):

(800) 424-9300

Other Calle:

(978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS Exposure limits CAS No Weight Ahhr

Odjodinent	Appi.	CAS No.	percent	TLV	PEL	Limits
isopropanol	IPA	67630	< 1	400 ppm	400 ppm	400 ppm (Canada)
Methacrylic acid	MAA	79414	1-10	20 ppm	20 ppm	4 ppm (Manufecturer)
Mathyl Methacrylate Monomer	MMA	80626	> 60	100 ppm	100 ppm	100 ppm (Canada)

[&]quot;TLV" means the Threshold Limit Value exposure (eighs-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental Industrial Hygieniers. "STEL" indicates a short-term exposure limit. "PEL" indicates the OSRA Permissible Exposure
Limit. "n/e" indicates that no exposure limit has been established. An amerisk (*) indicates a substance whose identity is a trade secret of our supplier and unknown to us.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Off-white pasts with varied fragrant odor.

WARNING! Flammable. Overexposure to liquid, mist or vapor may have the following effects: EYE AND SKIN EXPOSURE: Irritant and potential skin sensitizer. May cause redness, liching, burning, rash. RESPIRATORY EXPOSURE: Irritant. May cause headache, nauses, dizziness, fatigue, drowsiness. Avoid breathing vapor, Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally. Keep away from heat, sparks, open flames.

MBD80079



MSDS Name

MA 550

Manufacturer Name

ITW Plexus

Stock No.:

35000

Kit MSDS Revision Date

12/15/2009

Components:

MA 550 UK WHITE ACTVATOR

MA 550 ADHESIVE

ITW Plexus Product Code: 35000

Save page as PDF

PRINT Q GLOSSARY

View MSDS:

6 7 8 9 10 11 12 13 14 15 16

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name:

MA 550 UK WHITE ACTVATOR

Manufacturer Name:

ITW Plexus

Address:

30 Endicott Street

General Phone Number:

Danvers, MA 01923 (978) 777-1100

Emergency Phone Number:

(800) 424-9300

CHEMTREC:

For emergencies in the US, call CHEMTREC: 800-424-9300

Canutec: MSDS Revision Date: In Canada, call CANUTEC: (613) 995-6656 (call collect)

12/15/2009

HMIS Heilth Hizard REACTIVITY Protection

Chronic Health Effects

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent	
Non-hazardous Ingredients.	· N/A	5 - 10 by weight	·
Benzoyi peroxide	94-36-0	5 - 10 by weight	
Titanium dioxide	13463-67-7	30 - 60 by weight	•
Dilsodecyl phthalate	26761-40-0	10 - 30 by Weight	
Texanol Benzyl Phthalate	16883-83-3	10 - 30 by Weight	
Dissibutyi Phthalate	84-69-5	10 - 30 by weight	
Trade secret.	N/A	1 - 5 by weight	•
Inert material	N/A	1 - 5 by weight	
Fillers	N/A	1 - 5 by weight	

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview:

DANGERI Potential Sensitizer. Irritant.

Route of Exposure:

Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects:

Eye:

Can cause moderate irritation, burning sensation, tearing, redness, and swelling.

Overexposure may cause lacrimation, conjunctivitis, comeal damage and

permanent injury.

Skin:

Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling,

Allergic reactions are possible.

May cause skin sensitization, an allergic reaction, which becomes evident on

reexposure to this material.

Inhalation:

Respiratory tract irritant. High concentration may cause dizziness, headache, and anasthetic effects. May cause respiratory sensitization with asthma-like

symptoms in susceptible individuals.

Ingestion:

Causes irritation, a burning sensation of the mouth, throat and gastrointestinal

tract and abdominal pain.

Chronic Health Effects:

Prolonged skin contact may lead to burning associated with severe reddening

swelling, and possible tissue destruction.

Signs/Symptoms:

Overexposure can cause headaches, dizziness, nausea, and vomiting.

Target Organs:

Eyes. Skin. Respiratory system. Digestive system.

Aggravation of Pre-Existing

Conditions:

Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

SECTION 4 - FIRST AID MEASURES

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 to 20 minutes.

Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get

immediate medical attention.

Skin Contact:

Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while

removing contaminated clothing and shoes Get medical attention if irritation develops or persists

Inhalation:

If Inhaled, remove to fresh air: If not breathing, give artificial respiration or give

oxygen by trained personnel. Seek immediate medical attention.

Ingestion:

If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:

Decomposition products can be Flammable. Self accelerating decomposition

temperature is 129 F (estimated).

Not determined.

Auto Ignition Temperature: Lower Flammable/Explosive Limit:

Not determined. Not determined.

Upper Flammable/Explosive Limit: Not determined.

Fire Fighting Instructions:

Evecuate area of unprotected personnel. Use cold water spray to cool fire

exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.

Extinguishing Media:

Use carbon dioxide (CO2) or dry chemical when fighting fires involving this

Protective Equipment:

As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH

(approved or equivalent) and full protective gear.

Unusual Fire Hazards:

Organic peroxides can decompose violently if heated strongly while confined. Sudden reaction and fire may result if product is mixed with an oxidizing agent.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Cleanup Measures:

Absorb spill with Inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush

spill area with soep and water to remove trace residue. Avoid personal contact and breathing vapors or mists. Ventilate area. Use proper personal protective equipment as listed in section 8.

Personnel Precautions:

Evacuate area and keep unnecessary and unprotected personnel from entering

the spill area.

Environmental Precautions:

Avoid runoff into storm sewers, ditches, and waterways.

Other Precautions:

Pump or shovel to storage/salvage vessels.

SECTION 7 - HANDLING and STORAGE

Handling:

Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.

Storage:

Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Do not

store in temperatures above 100 °F.

Hygiene Practices:

Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:

Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training,

inspection and maintenance of the personal protective equipment.

Eye/Face Protection:

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard

EN 166.

Skin Protection Description:

Wear appropriate protective gloves and other protective apparel to prevent skin

contact. Consult manufacturer's data for permeability data.

Respiratory Protection:

A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator If there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not

provide adequate protection.

Other Protective:

Facilities storing or utilizing this material should be equipped with an eyewash

and a deluge shower safety station.

EXPOSURE GUIDELINES

Benzovi peroxide:

Guideline ACGIH:

TLV-TWA: 5 mg/m3

Guideline OSHA:

5 ma/m3

PEL-TWA: 5 mg/m3

<u>Titanium dioxide</u>:

Guideline ACGIH:

TLV-TWA: 10 mg/m3

Notes :

Only established PEL and TLV values for the Ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:

Color:

Paste...

Odor:

slight oder

Boiling Point:

Not determined.

Melting Point:

Not determined.

Specific Gravity: Solubility:

Not determined. slightly soluble.

Vapor Density:

Not determined.

Vapor Pressure: ...

- Not determined.

Percent Volatile:

Evaporation Rate:

<<1 (butyl acetate = 1)

Neutral.

Molecular Formula: Molecular Weight:

Mixture

Flash Point:

Not determined.

Auto Ignition Temperature:

Not determined.

VOC Content:

Percent Solids by Weight

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:

Unstable.

Hazardous Polymerization:

Not reported.

Conditions to Avoid:

Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Contamination, direct sunlight, friction and prolonged

storage above 100°F (38°C).

Incompatible Materials:

Oxidizing agents. Strong acids and alkalis.

SECTION 11 - TOXICOLOGICAL INFORMATION

Benzovi peroxide :

DM8575000

Eye:

Eye - Rabbit Standard Draize Test.: 500 mg/24H

Skin:

Oral - Rat LD50: 7710 mg/kg [Lungs, Thorax, or Respiration - Cyanosis Liver - Other changes Kidney/Ureter/Bladder - Other changes in urine composition]

Oral - Mouse LD50: 1200 mg/kg [Details of toxic effects not reported other than lethal dose value

Oral - Rat LD50: 6400 mg/kg [Details of toxic effects not reported other than lethal dose value.)

Intraperitorieal. - Mouse LD50: 147 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Intraperitoneal. - Rat LD50: 372.8 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Ingestion:

Oral - Rat LDS0: 7710 mg/kg (Lungs, Thorax, or Respiration - Cyanosis Liver Other changes Kidney/Ureter/Bladder - Other changes in urine composition) Oral - Mouse LD50: 1200 mg/kg [Details of toxic effects not reported other than

Oral - Rat LD50: 6400 mg/kg [Details of toxic effects not reported other than

lethal dose value.]

<u> Titanium dloxide:</u>

RTECS Number: Cardnogenicity:

XR2275000

IARC: Group 2B: Possibly carcinogenic to humans.

Dilsodecvi phthalate:

Disobutyi Phthalate:

RTECS Number:

TI1270000

Skin:

Oral - Rat LD50: 64 gm/kg [Details of toxic effects not reported other than lethal

Administration onto the skin - Rabbit LD50: >3160 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Oral - Ret LD50: 64 gm/kg (Details of toxic effects not reported other than lethal

Ingestion:

dose value.]

RTECS Number:

TI1225000

Skin:

Oral - Rat LD50: 15 gm/kg [Details of toxic effects not reported other than lethal

dose value. 1

Intraperitoneal. - Rat LD50: 3750 uL/kg [Details of toxic effects not reported

other than lethal dose value.]

Unreported - Rat LD50: 20500 mg/kg [Details of toxic effects not reported other than lethal dose value.)

Oral - Mouse LD50: 10 gm/kg [Behavioral - Muscle weakness Behavioral - Come Lungs, Thorax, or Respiration - Respiratory stimulation

Intraperitoneal. - Mouse LD50: 3990 mg/kg [Details of toxic effects not reported

other than lethel dose value.] Unreported - Mouse LD50: 10500 mg/kg (Details of toxic effects not reported

other than lethel dose value.] Administration onto the skin - Guinea pig LD50: 10 gm/kg [Details of toxic

effects not reported other than lethal dose value.]

Oral - Rat LD50: 15 gm/kg [Details of toxic effects not reported other than lethal

dose value.]

Oral - Mouse LD50: 10 gm/kg [Behavioral - Muscle weakness Behavioral - Coma

Lungs, Thorax, or Respiration - Respiratory stimulation]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

No ecotoxicity data was found for the product.

http://www.actiocms.com/VIEW_MSDS/view_language_kits2.cfm?edit_msds_id=3682&... 3/22/2011

2-6

Environmental Fate:

No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal:

Consult with the US EPA Guidalines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Number:-

--None-

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name:

Non regulated.

DOT UN Number:

N/A

DOT Hazard Class:

Not applicable.

DOT Packing Group: Not applicable.

SECTION 15 - REGULATORY INFORMATION

Benzoyl peroxide:

TSCA Inventory Status:

Listed

SARA:

EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

New Jersey:

Listed: NJ Hazardous List; Substance Number: 0215

Massachussetts:

Listed: Massachusetts Oil and Hazardous List Listed

Pennsylvania: Canada DSL:

Listed

<u>Titanium dioxide</u>:

TSCA Inventory Status:

Listed

Massachussetts: Pennsvivania: Listed Listed

Canada DSL:

Listed

Disodecyl phthalate:

Listed

TSCA Inventory Status: California PROP 65:

Listed: developmental

Canada DSL:

Listed

Texanol Benzyl Phthalate:

TSCA Inventory Status:

Listed

Canada DSL:

Listed

<u> Diisobutyi Phthalate</u>:

TSCA Inventory Status:

Listed

Canada DSL:

Listed

Canadian Regulations.

WHMIS Hazard Class(es): D2B

All components of this product are on the Canadian Domestic Substances List.

SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard: HMIS Health Hazard:

1

HMIS Reactivity:

....

HMIS Personal Protection:

12/15/2009

MSDS Revision Date: MSDS Author:

Actio Corporation

Disclaimer:

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury or damage which may result from its use. The information given in the Data Sheat is designed only as a guidance for safe handling, storage and the use

of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

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View MSDS: 4 5 6 7 8 9 10 11 12 13 14 15 16

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name:

MA 550 ADHESTVE

Manufacturer Name:

ITW Plexus

Address:

30 Endicott Street

General Phone Number: (978) 777-1100

Danvers, MA 01923

Emergency Phone Number:

(800) 424-9300

CHEMTREC:

For emergencies in the US, call CHEMTREC: 800-424-9300

In Canada, call CANUTEC: (613) 996-6666 (call collect)

MSDS Revision Date:

12/15/2009



Effects:

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name		CAS#	Ingredient Percent	
Methyl Methacrylate Monom	ier	80-62-6	60 - 100 by weight	
Non-hazardous ingredients.		 N/A	10 - 30 by weight	
Trade secret.		N/A	10 - 30 by weight	
Methacrylic acid		79-41-4	1 - 5 by weight	
Paraffin wax		64742-43-4	0.1 - 1 by weight	

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: Route of Exposure:

WARNING! Flammable. Harmful. Skin Sensitizer. Irritant.

Eyes. Skin. Inhalation. Ingestion.

Potential Health Effects: Eye:

Can cause moderate initiation, burning sensation, tearing, redness, and swelling. Overexposure may cause lacrimation, conjunctivitis, corneal damage and

permanent injury...

Skin:

Can cause skin irritation; ltching, redness, rashes, hives, burning, and swelling.

Allergic reactions are possible.

May cause skin sensitization, an allergic reaction, which becomes evident on

reexposure to this material. Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. May cause respiratory sensitization with asthma-like

symptoms in susceptible individuals.

Causes irritation, a burning sensation of the mouth, throat and gastrointestinal

tract and abdominal pain.

Chronic Health Effects:

Prolonged skin contact may lead to burning associated with severe reddening,

swelling, and possible tissue destruction.

Signs/Symptoms:

Conditions:

Inhalation:

Ingestion:::

Overexposure can cause headaches, dizziness, nausea, and vomiting.

Target Organs:

Aggravation of Pre-Existing

Eyes. Skin. Respiratory system. Digestive system. Central nervous system. Liver.. Kidney. Olfactory Function. Individuals with pre-existing skin disorders, asthma, allergies or known

sensitization may be more susceptible to the effects of this product.

http://www.actiocms.com/VIEW_MSDS/view_language_kits2.cfm?edit_msds_id=3682&... 3/22/2011

SECTION 4 - FIRST AID MEASURES

Eve Contact:

Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact:

Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while

removing conteminated clothing and shoes

Inhalation:

Get medical attention if irritation develops or persists. If inhaled, remove to fresh air. If not breathing, give artificial respiration or give

oxygen by trained personnel. Seek immediate medical attention.

Indestion:

If swallowed, do NOT induce vomiting. Call a physician or poison control center

immediately. Never give anything by mouth to an unconscious person.

Other First Aid:

Due to possible aspiration into the lungs, DO NOT induce vomiting if ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs

naturally, have the person lean forward to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:

Flammable. Fine mists explosive below flash point.

Flash Point:

Tag Closed Cup (TCC)

Flash Point Method: --Auto Ignition Temperature:

50°F (10°C)

Lower Flammable/Explosive Limit: 1.7% Upper Flammable/Explosive Limit: 12.5%

Fire Fighting Instructions:

Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.

Use carbon dioxide (CO2) or dry chemical when fighting fires involving this

Extinguishing Media:

material. Water may cause frothing.

Unsultable Media: Protective Equipment:

As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH

(approved or equivalent) and full protective gear.

Unusual Fire Hazards:

Sealed containers at elevated temperatures may rupture explosively and spread

fire due to polymerization.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spill Cleanup Measures:

Absorb spill with inert material (e,g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush

spill area with soap and water to remove trace residue. Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. . Vapors can flow along surfaces to distant ignition sources and flash

back. Ventilate area. Use proper personal protective equipment as listed in

Personnel Precautions:

Evacuate area and keep unnecessary and unprotected personnel from entering

Environmental Precautions:

Avoid runoff into storm sewers, ditches, and waterways. Pump or shovel to storage/salvage vessels. Add inhibitor to prevent

polymerization.

SECTION 7 - HANDLING and STORAGE

Handlina

Use with adequate ventilation. Avoid breathing vapor, serosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without

proper cleaning or reconditioning.

Storage:

Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.

Special Handling Procedures:

Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/fiame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor

residue may remain in emptied container. Do not reuse, heat, burn, pressurize, cut, weld, breze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

Hygiene Practices:

Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust

ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control alrooms levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training,

inspection and maintenance of the personal protective equipment.

Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard

EN 166.

Skin Protection Description: Wear appropriate protective gloves and other protective apparel to prevent skin

contact. Consult manufacturer's data for permeability data

Respiratory Protection:

A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under-certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator If there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not

provide adequate protection.

Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash

and a deluge shower safety station.

EXPOSURE GUIDELINES

Methyl Methacrylate Monomer:

Guideline ACGIH: 50 ppm

Sensitizer.: Sen TLV-STEL: 100 ppm TLV-TWA: 50 ppm

Guideline OSHA:

100 ppm

PEL-TWA: 100 ppm

Methacrylic acid:

Guideline ACGIH:

20 ppm TLV-TWA: 20 ppm

Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:

Color:

Odor:

Paste.. off-white. Fragrant.

Boiling Point:

213°F (100.5°C)

Melting Point: Specific Gravity: -54°F (-47.7°C)

Solublity:

0.93-1.05 Not determined.

Vapor Density:

> 1 (air = 1)

Vapor Pressure:

28 mmHg @68°F

Percent Volatile:

Evaporation Rate:

3 (butyl acetate = 1) Not determined.

Molecular Formula:

Molecular Weight:

Mixture

Flash Point:

50°F (10°C)

Flash Point Method:

Tag Closed Cup (TCC)

VOC Content:

<50 g/L mixed.

Percent Solids by Weight

Auto Ignition Temperature:

Not determined.

SECTION 10 - STABILITY and REACTIVITY

Chemical Stability:

Unstable.

Hazardous Polymerization:

Polymerization may occur under certain conditions.

Conditions to Avoid:

Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing

conditions. Material can soften paint and rubber.

Incompatible Materials:

Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azocompounds, catalytic metals (eg copper, Iron), halogens. Free radical initiators.

Oxygen scavengers.

SECTION 11 - TOXICOLOGICAL INFORMATION

Methyl Methacrylate Monomer:

RTECS Number:

OZ5075000

Eye: Skin:

Eye - Rabbit Standard Draize Test.: 150 mg

Intraperitoneal. - Guinea pig LD50: 1890 mg/kg [Behavioral - Somnolence

(general depressed activity)] Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence

(general depressed activity)] Orai - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma

Lungs, Thorax, or Respiration - Respiratory depression)

Intraperitoneal. - Rat LD50: 1328 mg/kg [Details of toxic effects not reported

other than lethal dose value.] Subcutaneous - Ret LD50: 7088 mg/kg [Behavioral - Somnolence (general

depressed activity)]

Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Intraperitoneal. - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general

depressed activity)] Subcutaneous - Mouse LD50: 5954 mg/kg [Behavioral - Somnolence (general depressed activity)]

Oral - Rabbit LD50: 8700 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Administration onto the skin - Rabbit LD50: >5 gm/kg [Skin and Appendages -

Dermatitis, other (After systemic exposure)]

Oral - Guinea pig LDS0: 5954 mg/kg [Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or

function of salivary glands]

Administration onto the skin - Rabbit Open irritation test: 10 gm

Inhalation: Inhalation - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not reported

other than lethal dose value.]

Inhalation - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not reported

other than lethal dose value.)

Ingestion: Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma

Lungs, Thorax, or Respiration - Respiratory depression]
Oral - Mouse LD50: 3625 mg/kg [Details of toxic effects not reported other than

lethal dose value.]

Mathacrylic acid:

RTECS Number:

Skin:

022975000

Unreported - Rat LD50: 1600 mg/kg [Details of toxic effects not reported other

than lethal dose value.] Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than

lethal dose value.] Intraperitoneal. - Mouse LD50: 48 mg/kg [Details of toxic effects not reported

other than lethal dose value.

Unreported - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported

other than lethal dose value.]

Oral - Rabbit LD50: 1200 mg/kg [Details of toxic effects not reported other than

lethal dose value.)

Administration onto the skin - Rabbit LD50: 500 mg/kg (Details of toxic effects

not reported other than lethal dose value.]

Administration onto the skin - Guinea pig LD50: 1 gm/kg [Details of toxic effects

not reported other than lethal dose value.]

Oral - Rat LD50: 1060 mg/kg [Details of toxic effects not reported other than

lethal dose value.]

ingestion:

Oral - Mouse LD50: 1250 mg/kg [Details of toxic effects not reported other than

Distribution of the control of the c

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:

No ecotoxicity data was found for the product.

Environmental Fate:

No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal:

Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local

guidelines. D001.

RCRA Number:

Important Disposal Information:

DANGERI Rags, steel wool and waste soaked with this product may

spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or

waste in a sealed, water-filled, metal container.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Adhesives

DOT UN Number:

1133

DOT Hazard Class:

3

DOT Packing Group:

Π,

DOT Exemption:

ORM-D Small quantity exemption

SECTION 15 - REGULATORY INFORMATION

Methyl Methacrylate Monomer:

TSCA Inventory Status:

SARA:

EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.

New Jersey:

Listed: NJ Hazardous List; Substance Number: 1277 Listed: Massachusetts Oli and Hazardous List

Massachussetts: Pennsylvania:

Usted

Canada DSL:

Listed

Methacrylic acid: TSCA Inventory Status:

Listed

Massachussetts:

Listed: Massachusetts Oil and Hazardous List

Pennsylvania: Canada DSL:

Usted

Paraffin wax :

Listed

TSCA Inventory Status:

Listed

Canada DSL:

Canadian Regulations.

WHMIS Hazard Class(es): B2; D2B

All components of this product are on the Canadian Domestic Substances List.

SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard:

HMIS Health Hazerd:

HMIS Reactivity:

HMIS Personal Protection:

12/15/2009

MSDS Revision Date: MSDS Author:

Actio Corporation

Disclaimer:

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss,

http://www.actiocms.com/VIEW_MSDS/view_language_kits2.cfm?edit_msds_id=3682&...

3/22/2011

injury or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals should be handled only by competent personnel, within a controlled environment.

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http://www.actiocms.com/VIEW_MSDS/view_language_kits2.cfm?edit_msds_id=3682&... 3/22/201



1 2 3 4 5 6 7 8

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name:

MA 590 Activator - 50 Gal

MSDS Manufacturer

Mumber:

TIW Plexus

Manufacturer Names Address:

30 Endicott Street

Danvers, MA 01923

General Phone Number: Emergency Phone

(978) 777-1100

(800) 424-9300

Mimber:

CHEMTREC:

For emergencies in the US, call CHEMTREC: 800-424-

Canutec MSDS Revision Date: In Canada, call CANUTEC: (613) 996-6666 (call collect)

12/15/2009



Chronic Health Lifferts:

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS#	Ingredient Percent
The second of th	who will be the property of the second	The second secon
Texanol Benzyl Phthalate	16883-83-3	5 - 10 by weight
Methyl Methacrylate Monomer	80-62-6	30 - 60 by weight
Trade secret.	NA	10 - 30 by weight
3,5-Diethyl-1,2-dihydro-1-phenyl-2-propylpyriding	e 34562-31-7	1 - 5 by weight
Phenol, 2,4-bis (1,1,-dimethylethyl)-, phosphite:	31570-04-4	0.1 - 1 by weight
Paraffin wax	64742-43-4	0.1 - 1 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Emergency Overview: Route of Exposure: Potential Health Ellerts. WARNING! Flammable, Harmful, Skin Sensitizer., Irntant.

Eyes. Skin, Inhalation, Ingestion.

Can cause moderate irritation, burning sensation, tearing, redness, and

Eye

swelling. Overexposure may cause lacrimation, conjunctivitis, comeal damage and permanent injury.

Can cause skin imitation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible.

May cause skin sensitization, an allergic reaction, which becomes evident on reexposure to this material.

inhalation:

Respiratory tract irritant. High concentration may cause dizziness, headache, and anesthetic effects. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.

Ingestion:

Causes imitation, a burning sensation of the mouth, throat and gestrointestinal tract and abdominal pain.

Chinnic Meatth Effects:

Prolonged skin contact may lead to huming associated with severe

mail.google.com/a/synergy55.com/?ui=...

https://mail.google.com/a/synergy\$5.co...

reddening, swelling, and possible tissue destruction.

Signs/Symptoms: Target Organs:

Overexposure can cause headaches, dizziness, nausea, and vomiting. Eyes, Skin, Respiratory system. Digestive system. Liver, Kidney, Olfactory

Function.

Aggravation of Pro-Fristing

Conditions:

Inhalation:

ingestion:

Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

SECTION 4 - FIRST AID MEASURES

Immediately flush eyes with plenty of water for at least 15 to 20 minutes. tive Contact:

Ensure adequate flushing of the eyes by separating the eyelids with-

fingers. Get immediate medical attention.

Skin Contact Immediately wash skin with plenty of soap and water for 15 to 20

minutes, while removing contaminated clothing and shoes.

Get medical attention il mitation develops or persists

If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

If swallowed, do NOT induce vamiting. Call a physician or poison control

conter immediately. Never give anything by mouth to an unconscious

Due to possible aspitation into the lungs, DO NOT induce vomiting if

ingested. Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person lean forward to reduce the

risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:

Flammable. Fine mists explosive below flash point.

Flosh Point:

50°F (10°C)

Flash Point Method:

Tag closed cup (TCC)

Auto Ignition Temperature

789°F

Lover Flammable/Explosive

1.7% 12.5%

Limit:

Upper Flammable/Explosive Links

fire Fighting Instructions:

Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off

Extinguishing Media:

Use carbon dioxide (CO2) or dry chemical when lighting fires involving

this material.

Unsuitable Media:

Water may cause frothing.

Protective Equipment:

As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

Unusual Fue Hazards

Sealed containers at elevated temperatures may rupture explosively and

spread fire due to polymerization.

MTPA The birms billy

NFPA Health:

NFPA Reactivity

MPA Other:

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions:

Evacuate area and keep unnecessary and unprotected personnel from

entering the spill area.

Environmental Precautions mail.google.com/a/synergy55.com/?ui=...

Avoid runoff into storm severs, ditches, and varietyavs

https://mail.google.com/a/synergy55.co...

Spill Cleanup Meesures:

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical vaste container. Provide ventilation. Collect spill with a nonsparking tool, Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace

Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. . Vapors can flow along surfaces to distant ignition sources and flash back. Ventilate area. Use proper personal protective equipment as listed in section 8.

Other Divernitions

Slorage:

Pump or shovel to storage/salvage vessels. Add inhibitor to provent polymerization.

SECTION 7 - HANDLING and STORAGE

Use with adequate ventilation. Avoid breathing vapor, agrosol or mist.

Material will accumulate static charges which may cause an electrical spark-

(Ignition source). Use proper grounding procedures. Do not reuse

containers without proper cleaning or reconditioning.

Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly closed when not in use.

Special Handling Procedures: Provide appropriate ventilation/respiratory protection against

decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emplied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grind, expose to sparks, flame, or ignition sources of empty containers without proper commercial cleaning or reconditioning.

Hygiene Practices: Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls:

Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Eye/Face Protection:

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.

Skin Protection Description

Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.

Respiratory Protection:

A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

EXPOSURE GUIDELINES

Methyl Methacrylate Manomer:

Guideline ACGIH.

Sensitizer.: Sen TLV-STEL: 100 ppm TLV-TWA: 50 ppm

Guideline OSHA:

100 ppm PEL-TWA: 100 ppm

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Matres :

Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance:	Paste.
Odor:	Fragrant.
Boiling Point:	>200°F (93.3°C)
Melting Pohit:	-54°F (-47.7°C)
Specific Gravity:	0.99
Solubility:	Not determined.
Vapor Density:	> 1 (air = 1)
Vajmr Pressure:	28 mmHg @68°F
Penent Volable	Not determined.
Evaporation Rate:	3 (butyl acetate = 1)
pHa	Not determined.
Holecular Formula:	Mixture
Molecular Weight:	Mixture
Flash Point	50°F (10°C)
Flash Point Method:	Tag closed cup (TCC)
Auto Ignition Temperature:	789°F
VOC Content:	<50 g/L mixed.
Perient Solids by Weight	Not determined.

Chemical Stability:

Unstable.

Hazanfous Polymenzation:

Polymerization may occur under certain conditions.

Conditions to Avoid:

Extreme heat, sparks, and open flame. Incompatible materials, exidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing conditions. Material can soften paint and rubber.

Incompatible Materials:

Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azo-compounds, catalytic metals (eg copper, iron), halogens. Free radical

initiators. Oxygen scavengers.

SECTION 11 - TOXICOLOGICAL INFORMATION

RTECS Number	OZ5075000
Eve	Eye - Rabbit Standard Draize Test.: 150 mg
5kin :	Intraperitoneal Guinea pig LD50: 1890 mg/kg [Behavioral -
* .	Somnolence (general depressed activity)]
	Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence
The second s	(general depressed activity)
** ** ** *** * * * * * * * * * * * * *	Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral
	Coma Lungs, Thorax, or Respiration - Respiratory depression)
	Intraperitoneal Rat LOSO: 1328 mg/kg [Details of toxic effects not
The state of the s	reported other than lethal dose value.]
	Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Somnolence
Annual State of the Control of the C	(general depressed activity)]
	Oral - Mouse LDSO: 3625 mg/ky [Details of toxic effects not reported
	other than lethal dose value.
	Intraperitorical Mouse LD50: 945 mg/kg (Behavioral - Somnolence
	(general depressed activity)]
	Subcutaneous - Mouse LD50: 5954 mg/kg (Behavioral - Somnolence
	(general depressed activity)]
	factorial achievages opposit! VI

mail.google.com/a/synergy55.com/?ui=...

Oral - Rabbit LDS0: 8700 mg/kg [Details of toxic effects not reported

other than lethal dose value.)
Administration onto the skin - Rabbit LD50: >5 gm/kg (Skin and

Appendages - Dermatitis, other (After systemic exposure)]

Oral - Guinea pig LD50: 5954 mg/kg (Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or function of salivary glands]

Administration onto the skin - Rabbit Open initation test: 10 gm

Inhalation - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not

__ reported other than lethal dose value.]

Inhalation - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not

reported other than lethal dose value.]

Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral -

Coma Lungs, Thorax, or Respiration - Respiratory depression)
—Oral - Mouse LDSD: 3625 mg/kg [Details of toxic effects not reported—

other than lethal dose value.]

SECTION 12 - ECOLOGICAL INFORMATION

No ecotoxicity data was found for the product.

Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Mumber:

Important Disposal Information:

DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a sealed, water-filled, metal container.

SECTION 14 - TRANSPORT INFORMATION

ont dusta de ministra protectorio de la protectorio de transfer de propegy, publica y conservamento per el companyo y Contrata de la ministra de la companyo de la companyo de propegy de propegy, publica y conservamento per el companyo y

DOT Shipping Name:

Adhesives

Pot UH Number:

1133

DOT Hazard Class:

DOT Packing Group:

3

11

DOT Exemption:

ORM-D Small quantity exemption

SECTION 15 - REGULATORY INFORMATION

Texamileencylehibalite:

Listed

TSCA Inventory Status: Canada DSL:

Methyl Mothacrylate Manamer:

TSCA Inventory Status: Listed

SARAS

EPCRA - 40 CFR Port 372 - (SARA Title III) Section 313 Listed Chemical.

New lergey:

Listed: NJ Hazardous List; Substance Number: 1277.

Massachussotts

Listed: Massachusetts Oil and Hazardous List

Pennsylvania:

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https://mail.google.com/a/synergy55.co...

3.5-Diethyl-1.2-dihydro-1-phenyl-2-propylayriding;

TSCA Inventory Status:

Listed

Canada DSL:

condua Not:

Listed

Phenol. 2.4-bis (1.1.-dincthylethyl)-, phosphic:

TSCA Inventory Status:

Listed

Canada DSL:

Listed

Parallin wax :

TSCA Inventory Status:

Listed

Canada DSL:

Listed

Canadian Regulations:

WHMIS Hazard Class(05); B2; D2B

All components of this product are on the Canadian Domestic Substances

WHMIS Pictograms



SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard:

HMIS Health Hazard 2.

HMIS Reactivity: HMIS Personal Protection: X

MSDS Revision Date:

12/15/2009

MSDS Author:

Actio Corporation

Disdaimer:

This Health and Safety Information is correct to the best of our knowledge and belief at the date of its publication but we cannot accept liability for any loss, injury-or damage which may result from its use. The information given in the Data Sheet is designed only as a guidance for safe handling, storage and the use of the substance. It is not a specification nor does it guarantee any specific properties. All chemicals though the handled role by representant or the substance. should be handled only by competent personnel, within a controlled environment.

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Q GLOSSAR"



STRUCTURAL ADHESIVES

View MSDS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: MA 590 ADHESIVE
MSDS Manufacturer Number: 1T177
Manufacturer Name: ITW Plexus
Address: 30 Endicott Street
Danvers, MA 01923

Danvers, MA 01923
General Phone Number: (978) 777-1100

Emergency Phone Humber: (800) 424-9300
CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300

Canatec: In Canada, call CANUTEC: (613) 996-6666 (call collect)

MSDS Revision Date: 12/15/2009



Chronic Health Effects:

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	. ma	CAS#	Ingredient Percent
Dodecyl methacrylate	,	142-90-5	S - 10 by weight
2-chloro-1,3 butadlene		9010-98-4	5 - 10 by weight
Methyl Methacrylate Monomer	X	80-62-6	30 - 60 by weight
Methoxy polyethylene glycol 350 methacrylate		26915-72-0	1 - 5 by weight
Tetradecyl methacrylate		2549-53-3	1 - 5 by weight
Trade secret.		N/A	10 - 30 by weight
2,6-Di-tertiary-butyl-para-cresol		128-37-0	1 - 5 by weight
Chlorosulfonated polyethylene		68037-39-8	1 - 5 by weight
Hexadecyl methacrylate		2495-27-4	1 - 5 by weight
Paraffin wax		64742-43-4	0.1 - 1 by weight

SECTION 3 - HAZARDS IDENTIFICATION

Inholation:

Emergency Overview:

Route of Exposure:

Route of Exposure:

Rotential Health Effects:

Eye:

Can cause moderate irritation, burning sensation, tearing, redness, and swelling:
Overexposure may cause lacrimation, conjunctivitis, corneal damage and
permanent injury.

Skin:

Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling.

Can cause skin irritation; itching, redness, rashes, hives, burning, and swelling. Allergic reactions are possible. May cause skin sensitization, an allergic reaction, which becomes evident on

reexposure to this material.

Respiratory tract irritant. High concentration may cause dizziness, headache,

and anesthetic effects. May cause respiratory sensitization with asthma-like symptoms in susceptible individuals.

Causes irritation, a burning sensation of the mouth, throat and gastrointestinal

http://www.actiocms.com/VIEW_MSDS/ZZZ_msdsdisplaycode_author_new_ANSI.cfm?... 2/

2/16/2011

Chronic Health Effosts

Prolonged skin contact may lead to burning associated with severe reddening,

swelling, and possible tissue destruction.

Signs/Symptoms: Target Organs:

Overexposure can cause headaches, dizoness, nausea, and vomiting,

Eyes. Skin, Respiratory system, Digestive system, Liver, Kidney, Olfactory

Aggravation of Pro-Frielling

Conditions:

Individuals with pre-existing skin disorders, asthma, allergies or known sensitization may be more susceptible to the effects of this product.

Eve Contact:

Immediately flush eyes with plenty of water for at least 15 to 20 minutes.

Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get

immediate medical attention. Skin Contact

Immediately wash skin with plenty of spap and water for 15 to 20 minutes, while

removing contominated clothing and shoes.

Get medical attention if irritation develops or persists.

indialphone

If inhaled, remove to fresh air. If not breathing, give artificial respiration or give

oxygen by trained personnel. Seek immediate medical attention.

If swallowed, do NOT induce vomiting. Call a physician or poison control center

immediately. Never give anything by mouth to an unconscious person.

Other fire aid-

Due to possible aspiration into the lungs, DO NOT induce veniting if ingested Provide a glass of water to dilute the material in the stomach. If vomiting occurs naturally, have the person fear forward to reduce the risk of aspiration.

SECTION 5 - FIRE FIGHTING MEASURES

Floridate Properties

Flash Page:

Flammable. Fine mists explosive below flash point. 50°F (10°C)

Plash Point Methods

Tag closed cup (TCC)

Auto Ignition Temperature:

Not determined.

Lower Flammuble/Explosive Limit: 2.1%

Upper Flammable/Explosive Limit: 12.5% Pire Fighting Instructions:

Evacuate area of unprotected personnel, tise cold water spray to cool fire

exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.

Extinguishing Hedia:

Use carbon dioxide (CO2) or dry chemical when fighting fires involving this

Unsultable Media:

Frolective Equipment:

As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH

(approved or equivalent) and full protective gear.

Sealed containers at elevated temperatures may rupture explosively and spread

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Pretaulions:

Evacuate area and keep unnecessary and unprotected personnel from entering

the spill area.

Avoid runoff into storm sewers, ditches, and waterways.

Environmental Presentions: Spill Cleanup Heasures:

Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container, Provide ventilation. Collect spill with a non-sparking tool. Place into a suitable container for disposal. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush

spili area with soap and water to remove trace residue.

Flammable, eliminate ignition sources. Vapors can form an ignitable mixture with air. . Vapors can flow along surfaces to distant ignition sources and flosh back. Ventilate area. Use proper personal protective equipment as listed in

Other Precautions:

Pump or shovel to storage/salyage vessels. Add inhibitor to prevent

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SECTION 7 - HANDLING and STORAGE

Handlino:

Use with adequate ventilation. Avoid breathing vapor, aerosol or mist. Material will accumulate static charges which may cause an electrical spark (ignition source). Use proper grounding procedures. Do not reuse containers without

proper cleaning or reconditioning.

Store in a cool, dry, well ventilated area away from sources of heat, combustible materials, direct sunlight, and incompatible substances. Keep container tightly

Provide appropriate ventilation/respiratory protection against decomposition. products (see Section 10) during welding/flame cutting operations and to protect against dost during sanding/grinding of cured product. Hazardous liquid or vapor residue may remain in emplied container. Do not reuse, heat, burn, pressurize, cut, weld, braze, solder, drill, grand, expose to sparks, flame, or ignition sources

of empty containers without proper commercial cleaning or reconditioning.

Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls.

Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.

Eve/Face Protection:

Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard

Skia Protection Description:

Wear appropriate protective gloves and other protective apparel to prevent skin

contact. Consult manufacturer's data for permeability data.

Respiratory Protection:

A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not

provide adequate protection.

Other Protective:

Facilities storing or utilizing this material should be equipped with an eyewash.

and a délugé snower safety station.

EXPOSURE GUIDELINES

Mathyl Hathacrylate Monamer:

Guldeline ACGIH:

50 ppm

Sensitizer.: Sen TLV-STEL: 100 ppm TLV-TWA: 50 ppm

Guideline OSHA:

100 ppm

PEL-TWA: 100 ppm

2.6-Di-terrincy-buryl-para-creech:

Guideline ACGIII:

TLV-TWA: 2 mg/m3 Inhalable vapor fraction (IVF)

Notes:

Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Approximor:

Paste.

Culor: Odort

off-white. Fragrant.

Boiling Point:

213°F (100.5°C)

Melting Point: Specific Gravity: -54°F (-47.7°C)

Solubility:

0.93-1.05

Vapor Density:

Not determined. 3.5 (air = 1)

Value Pressure.

28 mmHg @68°F

Percent volatile:

flot detérmined.

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Evaporation Rate:

3 (butyl acetate = 1)

Molecular Formula:

Mixture / Mixture:

Melecular Weight: Flash Point:

50°F (10°C)

Elish Point Method: Auto Idulator Temperatures: Tag closed cup (TCC) Not determined.

VOC Content:

< 50 g/L mbced.

Percent Solids by Weight

Not determined.

SECTION 10 - STABILITY and REACTIVITY

Cimmical Stubilitys

Unstable.

Consider the Section of the Constitution of th

Hazarness Folymenzation Polymenzation may occur under certain conditions.

Conditions to Avaid:

Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions. Oxygen-free atmospheres or inert gas blanketing. Freezing

conditions. Material can soften paint and rubber.

Incompatible Materials.

Oxidizing agents (eg peroxides, nitrates), reducing agents, acids, bases, azocompounds, catalytic metals (eg copper, iron), halogens. Free radical initiators.

Oxygen scavengers.

SECTION 11 - TOXICOLOGICAL INFORMATION

Oponeyl method yinta:

RIECS Number:

OZ4300000

Eye: Skiller. Eye - Rabbit Standard Draize Test.: 500 mg/24H [mild]

Intraperitoneal. - Rat LD50: 12 gm/kg [Details of toxic effects not reported other than lethal dose value.]

Intraperitoneal. - Mouse LOSO: 25 gm/kg [Details of toxic effects not reported

other than lethel dose value.]

2-chloro-1,3 but ndiene:

RIECS Humber:

E19640000

Shiii:

Oral - Rat LDS0: >40 gin/kg (Details of toxic effects not reported other than

tethal dose value.]

Timeschon:

Oral - Rat LD50: >40 mi/kg [Details of toxic effects not reported other than

letnal dose value.]

idelity Helincevinte Monomer:

RITECS Humber:

OZ5075000

-

Eye - Rabbit Standard Draize Test:: 150 mg

Skin

Inhabition

Intraperitoneal. - Guinea pig LD50: 1890 mg/kg [Dehavioral - Somnolence

(general depressed activity)]

Subcutaneous - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnolence

(general depressed activity)] Oral - Rat LD50: 7872 mg/kg [Behavloral - Muscle weakness Behavloral - Coma Lungs, Thorax, or Respiration - Respiratory depression]

Intraperitorieal. - Rat LD50: 1328 mg/kg (Details of toxic effects not reported

other than lethal dose value.]

Subcutaneous - Rat LD50: 7088 mg/kg [Behavioral - Soninolence (general

depressed activity)] Oral - Mouse LOSO: 3625 mg/kg [Détails of toxic effects not reported other than

lethal dose value.] Intraperitoneal. - Mouse LD50: 945 mg/kg [Behavioral - Somnolence (general

depressed activity)]

Subculaneous - Mouse LD50: 5954 mg/kg [Beliavioral - Somnolence (general

depressed activity)]

Oral - Rabbit LD50: 8700 mg/kg [Details of Toxic effects not reported other than

lethal dose value.1

Administration onto the skin - Rabbit LD50: >5 gm/kg [Skin and Appendages -

Dermatitis, other (After systemic exposure)]

Oral - Guinea pig LD50: 5954 mg/kg [Behavioral - Somnotence (general depressed activity) Behavioral - Ataxia Gastrointestinal - Changes in structure or

function of salivary glands]

Administration onto the skin - Rabbit Open irritation test: 10 gm

Inhalation - Rat LC50: 78000 mg/m3/4H [Details of toxic effects not reported other than lethal dose value. I

Inhabition - Mouse LC50: 18500 mg/m3/2H [Details of toxic effects not reported

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other than lethal dose value.]

ingestion:

Oral - Rat LD50: 7872 mg/kg [Behavioral - Muscle weakness Behavioral - Coma

Lungs, Thorax, or Respiration - Respiratory depression) Oral - Mouse (D50: 3625 mg/kg (Details of toxic effects not reported other than

lethal dose value.]

I. f-pi-kirtlary-hotyl-para-

RICS Number:

GO7875000

Eye - Rabbit Standard Draize Test.: 100 mg/24H

Shin.

Oral - Mouse LDSO: 650 mg/kg [Behavioral - Tremor Lungs, Thorax, or

Respiration - Chronic pulmonary etterna] Introperitorical: - Mouse LD50: 138 mg/kg (Lungs, Thorax, or Respiration -

Chronic pulmonary edema Lungs, Thorax, or Respiration - Other changes Blood -

Hemorrhage]
Introvencius. - Mouse LD50: 180 mg/kg [Behavioral - Sleep]
Oral - Cuinca pig LD50: 10700 mg/kg [Gastrointestinal - Hypermetility, diarrhea
Behavioral - Tremor Lungs, Thorax, or Respiration - Respiratory depression]

Oral - Rabbit LD50: 2100 mg/kg [Details of toxic effects not reported other than lethal dose values]

Introperitoneal. - Rat LD50: 8 gmykg (Details of toxic effects not reported other

Thorax, or Respiration - Other changes]
Intraperitoneal. - Mouse LD50: 138 mg/kg [Lungs, Thorax, or Respiration -

Acute pulmonary edema Blood - Hemorrhage) Oral - Rat LD50: 890 mg/kg [Details of toxic effects not reported other than

fethal dose value.]

Oral Mouse LDS0: 1040 mg/kg [Details of toxic effects not reported other than

lethal dose value.]

Introperitoneal. Monse LD50: 138 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Subcutaneous - Mouse t.050: 650 mg/kg [Details of toxic effects not reported

other than lethal dose value.]

Oral - Guinea pig LD50: 10700 mg/kg [Details of toxic effects not reported other

than lethal dose value.]

Irinestino.

Oral - Mouse LD50: 650 mg/kg [Behavioral - Tremor Lungs, Thorax, or

Respiration - Chronic pulmonary edema]
Oral - Mouse LD50: 650 ing/kg (Behavioral - Tremor Behavioral - Ataxia Lungs, Thorax, or Respiration - Other changes)

Oral - Rat LD50: 890 mg/kg [Details of toxic effects not reported other than

lethal dose value.]

Oral Mouse LD50: 1040 mg/kg [Details of toxic effects not reported other than

lethal dose value.]

SECTION 12 - ECOLOGICAL INFORMATION

Ecotowitity:

No ecotoxicity data was found for the product.

Environmental Fate:

No environmental information found for this product.

Wasto Oksposati

Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

RCRA Mumbers

D001, D019

Important Disposal Information:

DANGER! Rags, steel wool and waste soaked with this product may spontaneously catch fire if improperly discarded or stored. To avoid a spontaneous combustion fire, immediately after use, place rags, steel wool or waste in a scaled, water-filled, metal container.

SECTION 14 - TRANSPORT INFORMATION

DUT Shipping Name:

Adhesives

DOT UN Himilion:

1133

QOT Hazard Class: SOT Packing Group:

3

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that Exemption:

ORM-D Small quantity exemption

SECTION 15 - REGULATORY INFORMATION

Dadgevi mediservicie:	atasis	4 - 1 u	* *** *** *
TSCA Inventory Status	Listed	*** * *	
Canada Dat:	" Listed		
2-chipro-1,3 buladiens :		a de la companya de l	to a second design of the second second
THE A INVESTIGATION	tisted		
Canada DSE:	Listed		
Pictual idealingualists Comon	no:	**	
1500 Inventory States:	Listed		
SAULT TO THE TOTAL THE	EPCHA - 40 CI	n Part 377. (SMIA Fitte III)	Seption 313 Listed Chemical
New Jergey:		ardous List; Substance Numb	
Massachusaetta		chusetts Oil and Hazardous Lis	
Pennsylvania:	Listed		of the second
Canada DSL	Listed		
Methory polyethylene give	il 350 mulliscryla	182.2	
TSCA Inventory Status:	Listed		and the second s
Canada NOSL:	Listed	- 14 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	New only, and a see
Tetradeest methodestates:			
TSCA Inventory Status:	Listed		
Canada DSL	Listed	the transfer of	
2,5-Olitestiney-But elipsine			
Total Inventory Status:	Listed	and the second	
Messachussetts:	Listed		
Pannsylvänia:	Listed		
Canada DSiz	Listed	•	
Shlaroselfenated polyethyle	gre :	•	•
15CA hivemory Status:	Listed		
Canada OSI:	Listed		
Herafesti mulliperylate:	· ur	Company of the second	
TECA Inventory Status:	Listed		
Canada DSL:	Listed		
Parallin was:		the state of the state of	
TSCA Inventory Status:	Listed		
Canada (ISL:	Listed	2	
Canadian Requisitions		l Class(es): 112; D211 s of this product are on the Ca	madian Domestic Substances List.

WHMIS Pictograms



SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Mazard: HMIS Health Hazard: HMIS Republish		
mas manai brinecium:	X	
MSDS Revision Date:	12/15/2009 Actio Corporation	
Chacladingre	This Health and Safety Information is correct belief at the date of its publication but we can injury or damage which may result from its u Data Sheet is designed only as a guidance for of the substance. It is not a specification nor properties. All chemicals should be handled o	unot accept hability for any loss, ex. The information given in the r sale handling, storage and the use does it quarantee any specific

 $http://www.actiocms.com/VIEW_MSDS/ZZZ_msdsdisplaycode_author_new_ANSLefm?...$

2/16/2011

a controlled environment.

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Material Safety Data Sheet

Part No.: 0987

MA 1025 ACTIVATOR

This product appears in the following stock number(s):

Last revised:

07/08/99

Printed:

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename:

MA 1025 ACTIVATOR

General use:

This information applies only to the activator intended for use with MA 555 Adhesive. After proper mixing and ouring, the product is not hazardous.

Chemical family:

Organic peroxide solution

MANUFACTURER

ITW Plexus

30 Endicott St.

Danvers, Massachusetts 01923

EMERGENCY INFORMATION

Emergency telephone number

(CHEMTREC):

(800) 424-9300

Other Calls:

(978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENT	8			E	posure limits	
Constituent	Abbr.	CAS No.	Weight percent	ACGIH TLV	OSHA PEL	Other Limits
Texanol Benzyl Phthalate		16883833	15-40	n/e	∩/e	5 mg /m3 (Manulacturer)
Magnesium sulfate, 99%		7487689	1-10	n/e	r/e	n/e (n/e)
Cumene hydroperoxide	CHP	80159	1-10	n/s	rve	n/e
Disobutyi Phthalate	DIBP	84895	15-40	n/e	n/e	n/e
Benzoyl peroxide	BPO	94360	7-13	5 mg/m3	5 mg/m^3	5 ppm (Canada)
Surfactant (<2.8% glycol athers)			1-10	n/e	ri/e	n/e

[&]quot;TLY" means the Threshold Limit Value exposure (eight-hour, time-weighted average, unless otherwise noted) emablished by the American Conference of Covernmental Industrial Hygienists. "STEL" indicates a short-term exposure limit. "PRL" indicates the OSHA Permissible Exposure Limit. "n/a" indicates that no exposure timit has been established. An asterick (") indicates a substance whose identity is a trace scoret of our supplier

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Blue paste with little odor.

CAUTIONI Reactive. Possible eye irritant. Keep away from heat, sparks, open flames. Do not store near combustibles. Wash thoroughly after handling.

Madspete

2-6

Potential health effects Primary routes of exposure: Skin contect Skin absorption Seye contact Inhalation Ingestion Symptoms of acute overexposure: Skin: No acute effects reported for benzoyl peroxide at this dilution, although the pure peroxide can cause dermatitis. Eyes: May cause mild infation. Unlikely because of low vapor pressure of the mixture. Pure benzoyl peroxide causes respiratory irritation. Ingestion: Unlikely because of low vapor pressure of the mixture. Pure benzoyl peroxide causes respiratory irritation. Ingestion: Ingestion of di-n-butyl printelate may cause hallucinations, distorted perceptions, nausea, or verniting and kidney, urster or blacklar change Effects of chronic overexposure: Pure benzoyl peroxide is reported to be an allergen. Carcinogenicity — OsHA regulated: No ACGIH: No National Toxicology Program: No International Agency for Research on Cancernito Cancer-suspect constituent(s): None Medical conditions which may be eggravated by exposure: None reported 4. FIRST AID MEASURES First aid for reyes: Flush eye with clean water for at least 15 minutes while gently holding eyelids open. Get immediate medical attention. Wash thoroughly with soap and warm water. Consult a physician if initiation develops. First aid for inhelation: Wash thoroughly with soap and warm water. Consult a physician if initiation develops. First aid for ingestion: Do not induce vaniting. If patient is conscious, dilute by giving water, Get prompt medical attention. First aid for ingestion: Do not induce vaniting. If patient is conscious, dilute by giving water, Get prompt medical attention. First and for products can be flammable. Self accelerating decomposition temperature to 129 F (estimated). Extinguishing media: Water Carbon dioxide Dry chemical Foam Alcohol foam Alcohol foam International procedures: If arge amounts of material are involved, evacuate area and fight fire from safe distance. Cool fire-exposed Containers with water. Hussain fire and explosion hazards:	ITW Plexus Pert No.: 0987		Material	Safety Da	
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	Hazardous products of combustion:		,		

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6. ACCIDENTAL RELEASE MEASURES

Spill control:

Evacuate area; eliminate ignition sources; wear protective clothing and overshoes.

Containment

Dike, contain and absorp with clay, sand or other suitable material.

Cleanup:

Absorb spill on mert material such as vermiculite and transfer with nonsparking tools to impervious container.

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Notify appropriate authorities as required.

7. HANDLING AND STORAGE

Handling precautions:

- -Use nonsparking equipment
- -Do not get in eyes, on skin, or on clothing.
- -Avoid breathing vapora.
- —Use only as directed; avoid uncontrolled mixing with other materials, especially polymerizable or combustible materials.

Storage;

- -Keep well closed in a cool, dark place. Storage above 100 F will reduce useful life of the material.
- -Keap from heat, sparks, and open flame. Exposure to high heat can cause violent reaction.
- -Do not store near combustibles.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation:

Local exhaust is recommended for confined areas. General mechanical ventilation is adequate for normal use.

Other engineering controls:

Have emergency eye wash and safety showers in area.

Personal protective equipment

Eye and face protection:

Safety glasses with side shields.

Skin protection:

Chemical resistant rubber gloves are recommended.

Respiratory protection:

None required at normal handling temperatures.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:

n/d

Bolling point (°F):

Melting point (°F);

n/d at 0 °F

Vapor density (air = 1):

n/d

Vapor pressure (mmHg):

Evaporation rate (butyl acetate = 1); <<1

VOC (grams/liter);

Ő

Solubility in water:

Slight

A series of the Percent volatile by volume:

Percent solids by weight:

pH (5% solution or slurry in water): Neutral

10. STABILITY AND REACTIVITY

This material is chemically unstable. Hazardous polymerization will not occur.

Conditions to avoid:

Heat, spark, open flame, contamination, and friction

Incompatible materials:

Strong acids and bases, strong oxidizers, amines, polymerization accelerators.

Hazardous products of decomposition:

Flammable and toxic fumes including organic acids; carbon monoxide and carbon dioxide from complete combustion

Conditions under which hazardous polymerization may occur:

None

11. TOXICOLOGICAL INFORMATION

Acute oral effects:

LD50 (rat); > 5000 mg/kg

BPO: slightly taxle to practically non-toxic to rats. DBP: high oral doses given to pregnant animals produced minor abnormalities in off-spring.

Acute dermal effects:

LD50 (rabbit): No data

BPO: non-imitating to rabbits (4-hr exposure). Repeated controlled human skin contact studies produced skin allergy.

Acute inhalation effects: LC50 (rat): n/d

Exposure:

BPO: practically non-toxic to rats (LC50> 22.4 mg/L, 4-hr)

Eye initation:

BPO: severely irritating to rabbits. DBP: slight irritant (human)

DBP: 90 day dermal rabbit study. LOEL at 4200 mg/kg/day affected kidney. Oral animal studies showed effects of the testes, liver, and reduced weight gain-

Carcinogenicity, teratogenicity, and mutagenicity:

BPO: both positive and negative (mutagenic and non-mutagenic) responses occurred in tests with animal or bacterial cells. Repeated skin application with a known carcinogen enhanced skin tumor production in mice by the carcinogen. DBP: animal studies showed teretogenic and reproductive effects. Mouse lymphoma assay was positive with activation and negative without activation. Dibutyl Phihalate has been shown to cause birth defects in laboratory animal studies. The relevance of these findings to humans is unknown.

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Other chronic effects:

BPO: Rata fed dose of 2800 mg/kg for 2-yrs showed increase incidence of testicular atrophy.

Toxicological information on hazardous chemical constituents of this product:

Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LCSC 4hr, (rat)
> 15.8 g/kg	> 10.0 g/kg	n/d
n/d	1760 mg/kg	n/d
382 mg/kg	1200 mg/kg	220 ppm
15 g/kg	n/d	ſVď
7710 mg/kg	n/d	n/d
n/d	n/d	n/d
	(rat) > 15.8 g/kg n/d 382 mg/kg 15 g/kg 77.10 mg/kg	(ret) (rabbit) > 15.8 g/kg > 10.0 g/kg n/d 1760 mg/kg 382 mg/kg 1200 mg/kg 15 g/kg n/d 77:10 mg/kg n/d

12 ECOLOGICAL INFORMATION

Ecotoxicity:

96 hr, LC50 guppy (semi-statio) = 2.0 mg/l, moderately toxic, DBP: moderate BOD, may cause oxygen depletion in aqueous systems, a high potential to affect some aquetto organisms, a low potential to affect germination &/or early growth of some plants and seedlings.

Mobility and persistence:

BPO; almost 60 % biodegradadation was reached after 28 days in the closed bottle ready biodegradability test. DBP; expected to biodegrade and not persist for long periods in an aquatic environment.

Environmental fate:

BPO: EC50 = 35 mg/L absorbed to gel for activated sludge respiration inhibition.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations;

Dispose of in accordance to applicable federal, state, and local regulation. Incineration or fuel blending are the preferred methods of disposal.

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14. TRANSPORT INFORMATION

Proper shipping name:

Non-regulated

Technical name :

NA

Hazard class:

NA

UN number:

N/A

Packing group:

N/A

Emergency Response Guide no.:

IMDG page number:

Other:

15. REGULATORY INFORMATION

U.S. Federal Regulations

TSCA

All ingredients of this product are listed, or are exempt from listing, on the TSCA inventory.

The following RCRA code(s) applies to this material if it becomes waste: none

Regulatory status of hazardous chemical constituents of this product:

Constituent	Extremely Hazardous*	Toxic Chemical**	CEROLA RQ (16s)	TSCA 12B Export Notification
Texanol Benzyl Phthalate	No	No	1.0	Not required
Magnesium suifale, 99%	No	No	0.0	Not required
Cumene hydroperoxide	No	Yes	10,0	Nat required
Disobutyl Phthalate	No	No	0.0	Not required
Banzoyi peroxide	No	Yas	0,0	Not required
Startactant (<2.8% glycol ethers)	No	Yes	0.0	Not required

^{*}Consult the appropriate regulations for emergency planning and release reporting requirements for substances on the SARA Section 301 Extremely Hazardous Substance list.

For purposes of SARA Section 312 hazardous materials inventory reporting, the following hazard classes apply to this material: - Immediate health hazard - Reactivity hazard -

Canadian regulations

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[&]quot;Substances for which the "Toxic Chemical" column is marked "Yes" are on the SARA Section 313 list of Toxio Chamicals, for which release reporting may be required. For specific requirements, consult the appropriate regulations.

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WHMIS hazard clas	e(es) : C; D2B			turijam užpada ijus uastijas tain. st
the maximum amour	ethyl methecrylate in this o	roduct is polymerized during cure. I d is negligible (less than 5%), Actu d on an individual basis.	For purposes of air quality reg al emissions are a function of	guiations.
6. OTHER INFO	RMATION	ing parameter in the second		
Hazardous Identificati ratings:	: Materials on System (HMIS)	Health Flammability	Reactivity 2	The second se
			distance	
Revisions for this	issue:			·
MSDS section	to the second of the second	Revisions		
2	Ipdated constituents			

The information and recommendations in this document are based on the best information evaluable to us at the time of preparation, but we make no other warranty, express or implied, as to its correctness or completeness, or as to the results of religious on this document.

Material Safety Data Sheet

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MA 1025 ADHESIVE

This product appears in the following stock number(s):

IT232 IT235 IT236

Last revised:

03/24/99

Printed: 03/24/1996

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Tradename:

MA 1025 ADHESIVE

General use:

Adhesive. See Section 15 concerning VOC Information.

Chemical family:

Acrylate

MANUFACTURER

ITW Plexus

30 Endicott St.

Danvers, Massachusetta 01923

EMERGENCY INFORMATION

Emergency telephone number

(CHEMTREC):

(800) 424-9300

Other Calls:

(978) 777-1100

2. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS CONSTITUENTS

Exposure limits

Constituent	Abbr.	CAS No.	Weight percent	ACGIH -	PEL	Other Limits
Styrene		100425	<1	20 ppm	50 ppm	50 ppm (Canada)
Texanol Benzyl Phthalate		16883633	7-13	n/e	n/e	5 mg/m3 (Manufacturer)
Isopropanol	IPA	67630	<1	400 ppm	400 ppm	400 ppm (Canada)
Methyl Methacrylate Monomer	MMA	80626	30-60	100 ppm	100 ppm	100 ppm (Canada)

[&]quot;TLV" means the Threshold Limit Value exposure (sight-hour, time-weighted average, unless otherwise noted) established by the American Conference of Governmental industrial Hygienists. "STEL" indicates a short-term exposure limit. "PRL" indicates the QSHA Permissible Exposure Limit. "Ive" indicates that no exposure limit has been established. An esterisk (*) indicates a substance whose identity is a trade secret of our supplier and indicates that no exposure limit has been established.

3. HAZARDS IDENTIFICATION

Emergency Overview

Appearance, form, odor: Off-white paste with varied fragrant odor.

WARNING! Flammable. Keep away from heat, sparks, open flames. Overexposure may have the following effects: EYE AND SKIN EXPOSURE: Irritant and potential skin sensitizer. May cause redness, itching, burning, rash. RESPIRATORY EXPOSURE: Irritant. May cause headache, nausea, dizziness, fatigue, drowsiness. Chronic overexposure may cause liver and kidney effects. Contains styrene which may cause cancer. Avoid breathing vapor. Use with adequate ventilation or use proper respiratory equipment. Wash thoroughly after handling. Do not take internally.

MSD90618

ITW Plexus	•		Material	Safety D	•
Part No.: 0981			· · · · · · · · · · · · · · · · · · ·		Page 2
Potential health effects	e e e e e e e e e e e e e e e e e e e		***		and and and fine
		ntact Skin absorption	Eye contact	Minhalation	ingestion
Symptoms of acute over	3	and the second process of the second process			
Skin: May cause initation Eyes: Liquid and vapors c Inhalation:	auses moderate irritatio				
High concentration is	irritant to respiratory tra	ct and may cause dizzine	ess, headache, ar	d anaesthetic	effects.
Ingestion: Causes irritation, a bu	ming sensation of the n	nouth, throat and gaatroic	ntestinal tract and	abdominal pai	galan ya r a da
Effects of chronic overe		man and the state of the state			and and the
Prolonged exposure materials a carcinogenic or mute	lay lead to kidney, lung, laenic hazard	, and liver damage, not li)	cely to cause cand	er. Not believ	ed to represen
Carolnogeniolty - OSHA	~	ACGIH: No	National Toxic	ology Program	No.
latéma	tional Agency for Resea	rch on Canoer:Yes	(mno)let toxic	seloff Linflett	
Cancer	-suspect constituent(s)	: Styrena			
Medical conditions whice Preexisting eye and sk	h may be aggravated				
Other effects:		ts with MMA, but only at	levels taxic to the	mother.	
4. FIRST AID MEASU	TOPC	TO THE REPORT OF THE PARTY OF THE PARTY.			
First aid for eyes:		utes while gently holding	eyelids open. Ge	et immediate m	edical
First aid for skin: Immediately remove or warm soap and water.	ontaminated clothing ar Consult a physician if i	nd excess contaminant. I	Flush skin with wa	ater. Wash tho	roughly with
First aid for inhalation: Remove patient to free	ih air. Administer oxyge	en if breathing is difficult.	Get medical atte	ntion if sympto	ms persist.
First aid for ingestion: Do NOT induce vomiti	ng. Give two glasses of	f water to dilute if patient	is consolous. Ge	t medical atter	tion.
5. FIRE FIGHTING M	TEASURES				
General fire and explosic Vapor forms explosive				er eta unu	
Extinguishing media:					
Water	Carbon dioxide	Dry chemical	Foam	A	cohol foam
Flash Point (°F): 50	Method: To	CC		The second second	A MARIE A WAR AND A MARIE AND
Explosive limits in air (pe	roent) Lower: 2.1	Upper: 12.5	• •	and the same series of the same surply	
Special firefighting proce Keep personnel remov equipment. Cool tank	ed and upwind from fire	e. Wear self contained b fire from a distance as t	reathing apparatu he heat may ruptu	is and full prote ire the tanks,	ective
				•	
					MSDS0619

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Unusual fire and explosion hazards:

Sealed containers at elevated temperatures may rupture due to polymerization. Vapors are heavier than air and may travel to lightion sources and flash back.

Hazardous products of combustion:

Carbon monoxide, carbon dioxide and smoke.

6. ACCIDENTAL RELEASE MEASURES

Spill control:

Avoid personal contact. Eliminate ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable non-combustible material.

Cleanup:

For large spills, pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of properly (RCRA hazardous waste). Add inhibitor to prevent polymerization.

Special procedures;

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Use non-sparking tools

7. HANDLING AND STORAGE

Handling precautions:

Do not breathe vapor or mist. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Close container after each use. Ground container when pouring. Keep away from heat, flame or sparks. Use non-sparking tools.

Storage:

Keep in a cool place, without direct exposure to sunlight. Keep container tightly closed and otherwise in accordance with NFPA regulations. Maintain air space in storage containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation:

Use ventilation that is adequate to keep employee exposure to airborne concentrations below exposure limits.

Other engineering controls:

Keep container tightly closed. Observe label precautions. Have emergency eyewash and safety shower present.

Personal protective equipment

Eye and face protection:

Wear safety glasses. Wear coverall chemical splash goggles and face shield when eye and face contact is possible.

Skin protection:

Wear impervious butyl rubber clothing as appropriate to prevent contact.

Respiratory protection:

A NIOSH/MSHA air purifying respirator with an organic vapor cartridge may be permissible, however use a positive pressure air supplied respirator if there is any potential for uncontrolled release, or unknown exposure levels.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:

0.96

Boiling point (°F):

Melting point (°F):

Vapor density (air = 1):

Vapor pressure (mmHg):

28 mm Hg at 68 °F

Evaporation rate (butyl apatate = 1): 3

VOC (grams/(iter); < 50 mixed

Solubility in water:

Percent volatile by volume: n/d

pH (5% solution or slurry in water);

10. STABILITY AND REACTIVITY

This material is chemically unstable. Hazardous polymerization may occur.

Conditions to avoid:

Unstable with heat,

Incompatible materials:

Incompatible with strong oxidizing agents and reducing agents, acids and bases. Material is a strong solvent and can soften paint and rubber.

Hazardous products of decomposition:

Carbon monoxide, carbon dioxide and smoke.

Conditions under which hazardous polymerization may occur.

Excessive heat, storage in the absence of inhibitor and inadvertant addition of catalyst.

11. TOXICOLOGICAL INFORMATION

Acute oral effects:

LD50 (rat): > 2000 mg/kg estimate

Toxicity of MMA exposed near LD50 include blood in the urine and liver changes.

Acute dermal effects:

LD50 (rabbit): > 1700 mg/kg estimate

Dermatitis.

Acute inhalation effects: LC50 (rat): n/d

Exposure:

Toxicity of MMA at 8-100 times TLV from respiratory and gastrointestional inflation, lung damage, nervous system effects and blood in urine.

Eve Imitation:

Not available.

Subchronic effects:

Inhalation: Repeated exposure of MMA at 5-100 times the TLV include lung damage, pulmonary inflation, liver changes, eye irritation, nasal tissue changes, incoordination and upper respiratory irritation. Ingestion: Liver and kidney affects with altered function in both organs. Skin permeation may occur.

Carcinogenicity, teratogenicity, and mutagenicity:

Tests with MMA Indicate no affects on empryotoxicity, tetotoxicity nor teratogenic effects even in the presence of matemal toxicity.

Other chronic effects:

inhalation: long term exposure of MMA caused inflammation of the nasal cavity, changes in nasal sensory cells and

Material Safety Data Sheet

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decreased body weight. Ingestion: Can cause decreased body weight, and increased kidney weight

Toxicological Information on hazardous chemical constituents of this product:

	Constituent	Oral LD50 (ret)	Dermal LD50 (rebbit)	inhalation LC50 4hr, (ret)
Styrene		5000 mg/kg	n/d	24,000 mg/m3
Texanol Benzyl	Phthalate	> 15.8 g/kg	> 10,0 g/kg	n/d
Isopropanol		5045 mg/kg	12,8 g/kg	22827 ppm
Methyl Methacry	riețe Monomer	7872 mg/kg	> 5000 mg/kg	7098 ppm

12 ECOLOGICAL INFORMATION

Ecotoxicity:

MMA has: estimate of 96 hour median threshold limit: 100-1,000 ppm; 96 hour LC50, fathead minnow: 150 ppm; 96 hour LC50, bluegill eurifish: 232 ppm. MAA has: LC50 = 85mg/l, 96 hr, Rainbow trout (slightly toxic); EC50 > 130 mg/l, 48 hr, Daphnia magna (practically non-toxic); EC50 = 0.6 mg/l, 96 hr, Algae (highly toxic).

Mobility and persistence:

MMA is partially biodegradable in water. BOD-5 day: 0.14 g/g - 0.90 g/g; THOD: 1.92 g/g. MAA readily biodegraded (86% within 28 days) under gerobic conditions.

Environmental fate:

MMA produces high tonnage material in wholly contained systems. Liquid with moderate mobility. Sparingly soluble in water. High potential for bioaccumulation. Low mobility in soil.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

Do not dispose of in a landfill. Incineration is the preferred method of disposal.

14. TRANSPORT INFORMATION

Proper shipping name:

Adhesives

Technical name:

N/A

Hazard class ;

3

UN number:

1133

Packing group:

Ė

Emergency Response Guide no.;

107

IMDG page number:

4

Other:

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REGULATORY INFORMATION		 			-
U.S. Federal Regulations		• •			
TSCA	Section of the second section of the section of the second section of the section of the second section of the sectio				
All ingredients of this product are listed, or are Export notification is required under TSCA Se	exempt from listi c. 12B — see belo	ng, an the TSC w.	CA inventory		
The following RCRA code(s) applies to this D001	The state of the s		* * * * *	en er en	- ·
Regulatory status of hazardous chemical c	ovanineurs of fir	is product:		<u> </u>	:
Constituent	Extremely Hazardous'	Toxic Chemical**	OERCLA RQ (IDS)	TSCA 12B Export Notification	p
Styrene	No	Yes	1000.0	Not required	1
Texanol Benzyl Phinalate	No	No	1.0	Not required	٠٠.
Isopropanol	, No	No	0.0	Not required	
Methyl Methacrylate Monomer	No	Yes	1000.0	Not required	
"Substances for which the Toxic Chemical" column is me Toxic Chemicals, for which release reporting may be required For purposes of SARA Section 312 hazardo classes apply to this material: - immediate Reactivity ha	ous materials inv health hazard — D	entory report	ing, the foli	owino hazard	
Canadian regulations	•				
WHMIS hazard class(es): B2; D2B; D2A	• *				
Regulatory notes: In normal use, the methyl methacrylate in this produce the maximum amount of VOC (i.e. MMA) emitted is substrate and process and should be considered or	Declinible (less tha	n 5%). Actual e	purposes of emissions are	air quality regulations. a function of	
OTHER INFORMATION			<u></u>		
Hazardous Materials Identification System (HMIS) ratings;	Health Flan	nmability	Reactivit	y	
	_				
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ITW Plexus Part No.: 0983	•				Materia	al Safety	Data Sheet
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COMPOSITIO HAZARDOUS C Con- liscoutyl Phthalete	N/INFORMA ONSTITUENTS stituent	Abbr.	CAS No. 84895	Weight percent 20-40	ACGIH TLV	ospasure limits OSHA PEL n/e	Other Limits
COMPOSITIO HAZARDOUS CON CON Disobutyl Phthalaje enzoyl peroxide lanfactant (<1.4% gh "TLY" means the Threshe Conference of Government Limit."hyb" indicates that and unknown to us. HAZARDS ID:	ONFITTUENTS Stitue(it Col ethers) Ind Limit Value exposure in the tage of the control in tage of tage	Abbr. DIBP BPO BPO THE (eight-liour, TSTEL/ is been establish	CAS No. 84895 94360	Weight percent 20-40 10-20 < 5	ACGIH TLV n/a 5 mg/m3	osha PEL n/e 5 mg/m^3	Other Limits n/e 5 ppm (Canada) n/e
COMPOSITION HAZARDOUS CONSISTED CONTROL Philadele Control (1.4% ghazarda) (1.4	PN/INFORM/ PONSTITUENTS stituent (col ethers) let Limit Value exposure limit ha ENTIFICATI	Abby. DIBP BPO The (eight-liour, ass. "STEL" is a been established.	CAS No. 84895 94360 * Time-weighted average ndicates a short-term exched. An assertat (*) in	Weight percent 20-40 10-20 < 5	ACGIH TLV n/a 5 mg/m3	osha PEL n/e 5 mg/m^3	Other Limits n/e 5 ppm (Canada) n/e
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nhalation: High vapor concentrations are initiating to nose, throat, lungs, and ey	1988.
ngestion: Acute oral toxicity is low. May cause gastrio distress. May cause ce	ntral nervous system depression.
Effects of chronic overexposure: Pure benzoyl peroxide is reported to be an allergen.	
arcinogenicity — OSHA regulated: No ACGIH: No international Agency for Research on Cancer-No Cancer-suspect constituent(s): None	National Toxicology Program: No
fedical conditions which may be aggravated by exposure: Preexisting eye, skin and respiratory disorders. Other effects: See section 11.	
FIRST AID MEASURES	
irst ald for eyes: Flush eye with clean water for at least 15 minutes while gently holding attention.	g eyelids open. Get immediate medical
iret aid for eidn: Immediately remove contaminated clothing and excess contaminant.	Flush skin with water. Wash thoroughly with
scep and warm water. Consult a physician if irritation develops.	
irst sid for inhalation: Remove patient to fresh air. Administer oxygen if breathing is difficult	t. Get medical attention if symptoms persist.
Irst aid for inhalation: Remove patient to fresh air. Administer oxygen if breathing is difficult itst aid for ingestion: Do NOT induce vamiting. Give two glasses of water to dilute if patien FIRE FIGHTING MEASURES eneral fire and explosion characteristics: Decomposition products can be flammable. Self accelerating decomp	t. Get medical attention if symptoms persist. It is conscious. Get medical attention.
irst sid for inhalation: Remove patient to fresh air. Administer oxygen if breathing is difficult irst sid for ingestion: Do NOT induce vamiting. Give two glasses of water to dilute if patien FIRE FIGHTING MEASURES eneral fire and explosion characteristics: Decomposition products can be flammable. Self accelerating decomp	t. Get medical attention if symptoms persist. It is conscious. Get medical attention.
Irst aid for inhalation: Remove patient to fresh air. Administer oxygen if breathing is difficult itst aid for ingestion: Do NOT induce vamiting. Give two glasses of water to dilute if patient FIRE FIGHTING MEASURES eneral fire and explosion characteristics: Decomposition products can be flammable. Self accelerating decompositing media: Water Carbon dioxide Dry chemical ash Point (°F): Not available Method; (No flashpoint method for	t. Get medical attention if symptoms persist. It is conscious. Get medical attention. Dosition temperature is 129 F (estimated). Alcohol foam peroxides)
Irst aid for inhalation: Remove patient to fresh air. Administer oxygen if breathing is difficult itst aid for ingestion: Do NOT induce vamiting. Give two glasses of water to dilute if patien. FIRE FIGHTING MEASURES eneral fire and explosion characteristics: Decomposition products can be flammable. Self accelerating decomp extinguishing media: Water Carbon dioxide Dry chamical ash Point (°F): Not available Method; (No flashpoint method for xplosive limits in air (percent) — Lower: Not available Upper: Not	t. Get medical attention if symptoms persist. It is conscious. Get medical attention. Dosition temperature is 129 F (estimated). Alcohol foam peroxides)
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Irst aid for inhalation: Remove patient to fresh air. Administer oxygen if breathing is difficult irst aid for ingestion: Do NOT induce vamiting. Give two glasses of water to dilute if patien. FIRE FIGHTING MEASURES eneral fire and explosion characteristics: Decomposition products can be flammable. Self accelerating decompositing media: Water Carbon dioxide Dry chemical esh Point (°F): Not available Method; (No flashpoint method for explosive limits in air (percent) — Lower: Not available Upper: Not pecial firefighting procedures: If large amounts of material are involved, evacuate area and light fire space without full bunker gear. Firefighters should wear self-contained con fire exposed containers with water spray.	it. Get medical attention if symptoms persist. It is conscious. Get medical attention. It is conscious. Get medical attention.
Irst aid for inhalation: Remove patient to fresh air. Administer oxygen if breathing is difficult irst aid for ingestion: Do NOT induce vamiting. Give two glasses of water to dilute if patien. FIRE FIGHTING MEASURES eneral fire and explosion characteristics: Decomposition products can be flammable. Self accelerating decompositingulating media: Water Carbon dioxide Dry chemical esh Point (°F): Not available Method; (No flashpoint method for pecial firefighting procedures: If large amounts of material are involved, evacuate area and light fire space without full bunker gear. Firefighters should wear self-contains	it. Get medical attention if symptoms persist. It is conscious. Get medical attention. It is conscious. Get medical attention.

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6. ACCIDENTAL RELEASE MEASURES

Spiil control:

Avoid personal contact. Eliminate Ignition sources. Ventilate area.

Containment:

Dike, contain and absorb with clay, sand or other suitable material.

Cleanup:

Soak up residue with an absorbent such as clay, sand, or other suitable material and dispose of property. Flush area with water to remove trace residue. Use non-sparking tools,

Special procedures:

Prevent spill from entering drainage/sewer systems, waterways, and surface waters. Notify appropriate authorities as required.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact with eldn, eyes, or clothing. Wash thoroughly with soap and water after using and particularly before eating, drinking, smoking, applying cosmetics, or using toilet facilities.

Launder contaminated clothing and protective gear before reuse. Discard contaminated leather articles. Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations. Use non-sparking equipment. Bond and ground containers when transferring contains.

Storage:

Store in a cool, dry area away from high temperatures and flames. Storage above 100 F will reduce useful life of the material. Keep from heat, sparks, and open flame. Do not store near combustibles.

B. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

Ventilation:

Local exhaust ventilation is preferred although good general mechanical ventilation is usually adequate for most industrial applications. Local exhaust is recommended for confined areas.

Other engineering controls:

Have emergency shower and eye wash available.

Personal protective equipment

Eye and face protection:

Safety glasses with aide shields.

Skin protection:

Chemical-resistant gloves and other gear as required to prevent skin contact.

Respiratory protection:

None required at normal handling temperatures and conditions. Use NIOSH approved organic vapor cartidges for uncured activator and dust/particle respirators during grinding/sanding operations of cured product as exposure levels dictate.

MSDS0019

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9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity:

1.0-1.25

Boiling point (°F):

Melting point (°F):

n/d

Vapor density (air = 1);

Vapor pressure (mmHg):

n/d at 171 °F

VOC (grams/liter):

n/d

Evaporation rate (buty) acetate = 1); <<1

slight

Solubility in water:

Percent volatile by volume: Percent solids by weight:

pH (5% solution or slurry in water): neutral

10. STABILITY AND REACTIVITY

This material is chemically unstable. Hazardous polymerization will not occur.

Conditions to evoid:

Heat, spark, open flame, contamination, and friction

incompatible materials:

Strong acids, strong exidizing agents, strong mineral and organic bases (especially primary and secondary aliphatic amines), metal salis, reducing agents and accelerators.

Hazerdous products of decomposition;

Oxides of carbon; biphenyl, flammable and toxic fumes, and other organic substances may be formed during combustion.

Conditions under which hazardous polymerization may occur:

BPO: practically non-toxic to rate (LC50> 22.4 mg/L, 4-hr)

Not expected to occur under normal temperatures and pressures.

11. TOXICOLOGICAL INFORMATION

Acute oral effects:

LD50 (rat): No data available.

BPO: slightly toxic to practically non-toxic to rate.

Acute dermal effects:

LD50 (rabbit): No data available.

BPO: non-irritating to rabbits (4-hr exposure). Repeated controlled human skin contact studies produced skin altergy.

Acute inhalation effects: LC50 (rat): No data available

Exposure:

hours.

Eye irritation:

BPO: severely irritating to rabbits.

Subchronic effects:

No data available.

Carcinogenicity, teratogenicity, and mutagenicity:

BPO: both positive and negative (mutagenic and non-mutagenic) responses occurred in tests with animal or bacterial cells. Repeated skin application with a known carcinogen enhanced skin tumor production in mice by the carcinogen.

Other chronic effects:

BPO: Rats fed dose of 2800 mg/kg for 2-yrs showed increase incidence of testicular atrophy.

TTW Plexus

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Toxicological information on hazardous chamical constituents of this product:

Constituent	Oral LD50 (rat)	Dermal LD50 (rabbit)	Inhalation LC50 4hr, (rat)
Disobutyl Phihalate	15 g/kg	n/d	n/d
Benzoyi peroxida	7710 mg/kg	n/d	r/d
Surfactant (<1.4% glycol athers)	n/d	n∕d	n/d
			nid a bot determined

12 RCOLOGICAL INFORMATION

Ecotoxicity:

EPO: 96 hr, LC60 guppy (semi-static) = 2.0 mg/l, moderately toxic.

Mobility and persistence:

BPO: almost 60 % biodegradadation was reached after 28 days in the closed bottle ready biodegradability test.

Environmental fate:

BPO: EC50 = 35 mg/L absorbed to gel for activated sludge respiration inhibition.

13. DISPOSAL CONSIDERATIONS

Please see also Section 15, Regulatory Information.

Waste management recommendations:

If this resin becomes a waste, it would not be a hazardous waste by RCRA criteria (40CFR 261). Dispose of according to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

Proper shipping name:

Non-requirted

Technical name:

N/A

Hazard class:

NA

UN number:

N/A

Packing group:

N/A

Emergency Response Guide no.:

,

(MDG page number:

N/A

Other:

N/A

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t No.:	Plexus		M	aterial !	Safety Data Sh
	ULATORY INFORMATION		an Euro	·	Page
_	ederal Regulations			· · · · · ·	
TSCA	and the control of th				to in the second of the second distance of
	reclients of this product are listed, or	are exempt from listi	ng, on the TSC	A inventory	· ·
The fa Nor	ollowing RCRA code(s) applies to the	this material if it be	comes waste:		
Regula	atory status of hazardous chemic	al constituents of th	ls product:		
	Constituent .	Extremely Hazardous'	Toxic Chemical**	CERCLA RQ (lbs)	TSCA 12B Export Notification
Disob	utyl Phthalate	No No	-No -	0.0	Not required
Benzo	ył peroxide	No	Yes	0,0	Not required
Surfac	stant (<1.4% glycol ethers)	No	Yes	0,0	Not required
*Substs For pt classe	the appropriate regulations for amargency pity Hazardous Substance list. Increa for which the "Toxic Chemical" octumn is amicals, for which release reporting may be rurposee of SARA Section 312 hazz apply to this material: _ Immedition regulations	a marked "Yas" are on the equired. For specific requi ardous materials Inv	SARA Bectlen 313 irements, consult it ventory reporti	list of ne appropriate ing. the foll	regulations.
Substace Character Character Character Canada WHMIS Regulz In normal the maximum and the maxim	inces for which the "Toxic Chemical" column interposes of SARA Section 312 hazzas apply to this material:Immedialn regulations The hazard class(es): D28;C Satory notes: Tal use, the adhesive mixed with this proximum amount of VOC (i.e. MMA) emitted.	a marked "Yas" are on the equired. For specific required. For specific required materials invested health hazard — For specific required to be a specific required to be seen as the polyments of	SARA Section 313 irements, consult to remote report report Reactivity hazan	illst of the appropriate ing, the foli i'd -	regulations. owing hazard cuality raquiations.
*Substa For pt classe Canad WHMIS In norm the max process	mose for which the "Toxic Chemical" column intermicule, for which release reporting may be nulposes of SARA Section 312 hazzas apply to this material:Immedical regulations hazard class(es): D28;C atory mates: haluse, the adhesive mixed with this ore	a marked "Yas" are on the equired. For specific required. For specific required materials invested health hazard — For specific required to be a specific required to be seen as the polyments of	SARA Section 313 irements, consult to remote report report Reactivity hazan	illst of the appropriate ing, the foli i'd -	regulations. owing hazard cuality raquiations.
*Substa For pt classes Canad WHMIS Regula In norm the max process	moses for which the "Toxic Chemical" column intermicals, for which release reporting may be reporting may be reporting to the materials. Immediate regulations The regulations	a marked "Yes" are on the equired. For specific required, For specific required to the health hazard — For specific required to the health hazard — For specific required to the health hazard for specific required to the health hazard — For specific required to the health — For	SARA Section 313 irements, consult to remote report report Reactivity hazan	illst of the appropriate ing, the foli i'd -	regulations. owing hazard quality regulations, retion of substrate and
For picture Character Canada WHMIS Regular In normal Canada Canad	mess for which the "Toxic Chemical" column is semicals, for which release reporting may be a supposes of SARA Section 312 haza apply to this material: - Immedition regulations The hazard class(es): D2B;C atory notes: Atory	a marked "Yes" are on the equired. For specific required. For specific required to the health hazard — For specific required is polymertzed during its low (less than 10% dual basis.	SARA Section 313 irements, consult it removes report feactivity hazen fing cure. For putils. Actual emission mability	ilist of the appropriate ing, the following	regulations. owing hazard quality regulations, retion of substrate and
For picture Character Canada WHMIS Regular In normal Canada Canad	mess for which the "Toxic Chemical" column is imposes of SARA Section 312 hazz reporting may be a supply to this material: - Immediate regulations hazard class(es): D28;C story notes: along the adhesive mixed with this proving a substitute of VOC (i.e. MMA) emitted and should be considered on an individual regulation Materials identification System (HMIS) ratings:	a marked "Yes" are on the equired. For specific required. For specific required to the earth hazard — For specific required is polymertzed during its low (less than 10% dual basis.	SARA Section 313 irements, consult it removes report feactivity hazanting cure. For putils. Actual emission mability	ilist of the appropriate ing, the following	regulations. owing hazard quality regulations, retion of substrate and

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MATERIAL SAFETY DATA SHEET
                        SECTION I - IDENTIFICATION
TRADE NAME: POLYCOR

DESCRIPTION: CONDUCTIVE TOOLING PRODUCT CODE IDENTITY: 945B023

NPCA HMIS RATING: H 2* F 3 R 2

LAST REVISED: 11/07/2002

DATE OF ISSUE: 08/20/2007
COMPANY NAME: COOK COMPOSITES AND POLYMERS CO.
ADDRESS: 820 E. 14th AVENUE PREPARED BY:
NORTH KANSAS CITY, MO 64116 HAZARD COMMUNICATION DEPT.
              INFORMATION TELEPHONE:
CUSTOMER:
                                                      COMPOSITES: 1-800-821-3590
                                                      POLYMERS:
                                                                    1-800-488-5541
  ATTENTION:
 24 HOUR RESPONSE NUMBER (CHEMTREC): 1-800-424-9300 (NORTH AMERICA)
       703-527-3887 (INTERNATIONAL)
  CCP certifies that its products comply with all the provisions of the
  Toxic Substances Control Act (TSCA), unless otherwise stated by
  ingredient in Section II.
  The percent by weight composition data given in Sections II
        and X are NOT SPECIFICATIONS, but are based on 'target'
        formula values for each ingredient in the product. The data
      are presented as ranges for low hazard ingredients and single point values for ingredients of regulatory concern. Actual batch concentrations will vary within limits consistent with separately established product specifications.
                          SECTION II INGREDIENTS
 CAS# 027253-31-2
COBALT NEODECANOATE, 26% COBALT
PCT BY WT: .0600 EXPOSURE LIMIT:
     ACGIH TLV/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME
OSHA PEL/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME
  ------
                       CAS# 000136-52-7
COBALT 2-ETHYLHEXANOATE, 12% COBALT
 PCT BY WT: .1040
EXPOSURE LIMIT:
     ACGIH TLV/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME OSHA PEL/TWA: .05 MG/CU.M. AS COBALT METAL, DUST & FUME
 CAS# 001333-86-4
CARBON BLACK
 PCT BY WT:
              4.2490
EXPOSURE LIMIT:
                        3.5 MG/CU.M.
3.5 MG/CU.M.
NOT AVAILABLE
     ACGIH TLV/TWA:
     OSHA PEL/TWA:
     LD50, Oral:
     LD50, Dermal: NOT AVAILABLE LC50, Inhalation: NOT AVAILABLE
```

NIOSH REL: 3.5 MG/CU.M.

OTHER:

4
CAS# 000100-42-5
STYRENE MONOMER
PCT BY WT: 46.9200 VAPOR PRESSURE: 4.500 MMHG @ 68F

From: BRENNTAG SPECIALTIES INC. To: OCEAN YACHTS INC. Monday, December 12, 2011



Material Safety Data Sheet

MSDS no. 14511V1

WHMIS (Canada)



NFPA (USA)
Fire

Health

Specific hazard

leactivity

Flammability 3
Personal protection (X)

Protective clothing



B-2 D-2A D-2B

Section 1. Che	mical product and company identification	The section forms of the section of	<u></u>
Trade name	G370LV12100		
Product type	Gel Coat		
Chemical family	Aromatic.	A STATE OF THE STA	
Material uses	Used in the manufacture of thermoset p	asfic parts.	
Manufacturer	AOC, LLC 950 Highway 57 East	In case of emergency	
V	Collierville, TN U.S.A. 38017 Website: www.acc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666	

Section 2. Hazards identification		
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).	
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion	
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Stdn: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.	
Potential chronic health affects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung turnors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Itanium Dioxide: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. Iatc: Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP. Methyl Methacrylate: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC. Silica. Amorphous: Classified 3 (not classifiable for human) by IARC. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database. Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.	

IMPORTANT: while Bremmag believes the information contained herein to be accurate. Bremmag makes no representation or warranty, express or implified, regarding, and assumes no liability for, the accuracy of completeness of the information. The Buyer assumes all responsibility r handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

From: BRENNTAG SPECIALTIES INC. To: OCEAN YACHTS INC. Monday, December 12, 2011

MSDS no.: 14511V1 G370LV12100 Section 3. Composition/information on ingredients		
1) Styrene 2) Titanium Dioxide	100-42-5 13463-67-7	26.6 20 - 30
3) Aluminum Hydroxide 4) Telc	21645-51-2 14807-96-6	5 - 10 5 - 10
5) Methyl Methacrylate 6) Silica, Amerphous 7) Cobalt Compounds	80-62-6 7631-86-9 Mixture	3:0 1-5 01-1

Section 4. First ai	d measures
Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will ald in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive scap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vorniting. Seek immediate medical attention.

Section 5. Fire fighting measures		
The product is:	Flammable liquid, Class IC.	
Auto-ignition temperature	790°F(421°C) Methyl Methacrylate	
Flash point	75 - 89°F (24.8 - 32°C)	
Flammable limits	Lower: 0.9% Upper: 12.5%	
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.	
Fire hazard	Flammable in the presence of open flames, sparks, or heat.	
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.	
Fire-fighting media and instructions	SMALL FIRE: Use carbon dioxide, form, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, form, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.	

Section 6. Accidental release measures		
Small spill	Absorb with an inert material and place in an appropriate waste disposal container.	
Large spill	Stop leak if without risk. Eliminate all Ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.	

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From: BRENNTAG SPECIALTIES INC. To: OCEAN YACHTS INC Monday, December 12, 2011-

MSDS no. : 14511V	G370LY12100
Section 7. Handli	ng and storage
Handling	WARNING! Use only in well-ventilated areas. Store away from direct sunlight. Avoid inhalation and contact with eyes, skin, and clothing. Wear appropriate personal protective equipment for your task. Ground and bond all containers when transferring the material. Empty containers may retain product and product vapor. Do not expose to heat, flame, sparks or other ignition sources such as cutting, welding, drilling, grinding or static electricity. Do not pressurize. Provide adequate safety showers and eyewashes in the area of use. Note: If product contains metal compounds (Section III), avoid dust from dried product or grinding of articles made from this material:
Storage	Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well- ventilated place. Containers should be grounded.

Exposure limits	Styrene	ACGIH TLV (United States, 1/2008). Skin
		TWA: 20 ppm 8 hour(s).
		TWA: 85 mg/m² 8 hour(s).
•		STEL: 40 ppm 15 minute(s).
-		STEL: 170 mg/m² 15 minute(s).
· ·	7 - 7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	OSHA PEL Z2 (United States, 11/2006).
		TWA: 100 ppm 8 hour(s).
		CEIL: 200 ppm
		AMP: 600 ppm 5 minute(s).
	Titanium Dioxide	ACGIH TLV (United States, 1/2007).
_		TWA: 10 mg/m³ 8 hour(s).
		OSHA PEL (United States, 11/2006).
		TWA: 15 mg/m ³ 8 hour(s). Form: Total dust
. *		OSHA PEL 1989 (United States, 3/1989).
		TWA: 10 mg/m³ 8 hour(s), Form: Total dust
	Aluminum Hydroxide	ACGIH TLV (United States, 2007). Notes: Total Respirable
		TWA: 10 mg/m³ Form: Aluminum metal and insoluble
	t one species o	compounds
	•	OSHA PEL (United States).
		TWA: 5 mg/m² Form: Respirable fraction
	•	TWA: 15 mg/m³ Form: Total particulates
	Talc	ACGIH TLV (United States, 1/2007).
		TWA: 0.1 F/cc 8 hour(s).
	· · · · · · · · · · · · · · · · · · ·	NIOSH REL (United States, 12/2001).
-	A second of the second of the second of	TWA: 2 mg/m² 10 hour(s). Form: Respirable fraction
		OSHA PEL 1989 (United States, 3/1989).
		TWA: 2 mg/m² 8 hour(s). Form: Respirable dust
		OSHA PEL Z3 (United States, 9/2005).
	•	STEL: 1 f/cc 30 minute(s). Form: not containing asbestos
	#	TWA: 20 mppcf 8 hour(s). Form: not containing asbestos
	Methyl Methacrylate	OSHA PEL (United States).
		TWA: 100 ppm
,		TWA: 410 mg/m³
	\mathbf{v}	ACGIH TLV (United States). Skin sensitizer
•	A STATE OF THE STA	TWA: 50 ppm
		TWA: 410 mg/m²
•	Silica, Amorphous	NIOSH REL (United States, 12/2001).
	and the second s	TWA: 6 mg/m³ 10 hour(s).
	Cobalt Compounds	OSHA PEL (United States).
	No. of the Control of	TWA: 0.1 mg/m²
	The state of the second st	ACGIH TLY (United States).
		TWA: 0.02 mg/m²
		The state ingiti
ngineering controls	Provide exhaust ventilation or other e	ngineering controls to keep the airborne concentrations of vapors below
	user respective occupational exposur	e limits. Provide adequate safety showers and eyewashes in the area of

IMPORTANT: While Branntag believes the information contained herein to be accurate Branntag makes no representation or warranty, express implied, regarding, and assumes no liability for the accuracy or completeness of the information. The Buyer assumes all responsibility or handling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in any way limit or preclude the operation and effect of any of the provisions of Branntag's terms and conditions of sale.

From: BRENNTAG SPECIALTIES INC. To: OCEAN YACHTS INC. Monday, December 12, 2011

MSDS no. : 14511V1	G370LV12100
Section 8. Exposure	ontrols/personal protection
Personal protection	Personal protective equipment may vary depending on the job being performed. Eye/face: Wear eye protection such as safety glasses with side shields, splash goggles or face shield with safety glasses. Skin: Avoid skin contact. Impervious gloves should be worn. Other items may include long sleeves, lab coats, or impervious jackets. Respiratory: Determine if airborne concentrations are below the recommended exposure limits in accordance your company's PPE program and regulatory requirements. If they are not, select a NIOSH-approved respirator that provides adequate protection from the concentration levels encountered. Air-purifying respirators are generally adequate for organic vapors. Use positive pressure, supplied-air respirators if there is potential for an uncontrolled release, if exposure levels are unknown, or under circumstances where air-purifying respirators may not provide adequate protection. Reference OSHA 29 CFR 1910.134.
Personal protection in cas of a large spill	Chemical resistant gloves, full protective suit, and boots. Respiratory protection in accordance with OSHA regulation 29 CFR 1910.134. A self-contained breathing apparatus should be used to avoid inhalation of the product vapors.

Section 9. Physical and	chemical properties	Commence of the commence of th	A STATE OF THE STA
Physical state	Liquid.		
Color	White.		
Odor	Aromatic.	a se Change see	
Molecular weight (g/mol)	Not available.		
Boiling point	214°F(101°C) Methyl Methacrylate	· Vet - Velan naments for m .	
Melting point	Not available.	.~	
pH (1% soin/water)	Not applicable.		
Vapor pressure	40 mm Hg@ 77°F (25°C) Mathyl Methac	rylate	
Vapor density	3.5 - 3.6 (Air = 1)	· · · · · · · · · · · · · · · · · · ·	
Specific gravity	1.1 to 1.4 (Water = 1)		
Waterfoil dist. coeff.	Not available.	vilita näi kuudini luon kuudinaa k	
Evaporation rate	Not available.		
Odor threshold	<1,0 ppm		
Solubility in water	Slight.		
Dispersibility properties	Slight dispersion in water.		

Section 10. Stability and reactivity							
Stability	This product is normally stable, but can become unstable at elevated temperatures.						
Instability temperature	>120°F (48.9°C)						
Conditions of Instability	Heat						
Incompatibility with various substances	Polymerizes in the presence of organic peroxides, oxidizing materials, or heat.						
Corrosivity	Our database contains no additional remark on the corresivity of this product						

CIANT: While Brenntag believes the information contained herein to be accurate. Brenntag makes no representation or warranty, express field, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility fling, using and/or reselling the Product in accordance with the applicable federal, state, and local law. This MSDS shall not in limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

From: BRENNTAG SPECIALTIES INC. To: OCEAN YACHTS INC. Monday, December 12, 2011

MSDS no. : 14511V1	•				G370LV12100
Section 11. Toxicologica	al information		,		
Toxicity to animals	Name	Result	Species	Dose	Exposure
	Styrene	LD50 Oral LC50 Inhalation Vapor	Rat Rat	2650 mg/kg 5634.2 ppm	4 hours
	Titanium Dioxide	LD Intratracheal LD50 Oral	Rat Rat	>100 ug/kg >10000 mg/kg	
·	And the second s	TDLo Intratracheal	Rat	1.6 mg/kg	
		TDLo Intratracheal	Rat	1.25 mg/kg	•
		TDLo Oral TDLo	Rat Rat	60 g/kg 5 mg/kg	juli 🔓 ji kisan kana ta kanaan
	Methyl Methacrylate	Intratracheal LD50 Oral LC50 Inhalation	Rat Rat	7872 mg/kg 7094 ppm	- 4 hours
	Cobalt Compounds	Gas. LD50 Oral	Rat	6171 mg/kg	
Special remarks on toxicity to animals	Lung effects have been observed in	mouse studies following	g repeated	l exposure.	
Special remarks on chronic effects on humans	Repeated or prolonged overexposur	re to near lethal concer	trations ca	n produce liver and ki	dney damage
Special remarks on other toxic effects on humans	Tale: Exposure to dusts containing tale campy irritate the eyes. Breathing dust There are reports that relatively mild mixed dusts containing tale. Prolong Methyl Methacrylate: MMA has both acute and chronic eff headache, nausea, vomiting, dizzine will result in moderate irritation to the dermatitis. Chronic exposure can caultimately liver, tung or kidney damage.	t may initate the nose of preumocontosts can depend inhabition may elso ects. Inhabition overests, initation of upper resident, eyes and mucouse headache and nat	and throat levelop after produce a coordinate management espiratory to some management some ma	and cause coughing a er years of occupation of librotic response. By result in irritation of ract and unconcious nes. Prolonged skin o al nervous system del	and chest discomfort. It is a common to the

Section 12, Ecolo	gical information
Ecotoxicity	Toxic to aquatic organisms. Should not be released to sewage system or other bodies of water at concentrations above limits established in regulations or permits.
	The state of the s

Section 13. Disposal	considerations	,
Waste disposal	Recycle to process, if possible. Consult your local or regional authorities. Ignitable characteristic,	

DOT	UN1866; Resin Solution; 3; III.	Labels	
TDG	UN1866; Resin Solution; 3; III.		(Class Black)
LATA/IMDG	IATA: UN1866; Resin Solution; 3; III; Pkg. Inst.: Passenger - 309; Cargo - 310 IMDG: UN1866; Resin Solution; 3; III; FP=24.8° - 32°C; EmS No.: F-E, S-E		
Additional information	US regulations require the reporting of spills when the amo specific components of this material. See CERCLA in Sect Quantities.	unt exceeds the Repo ion 15, Regulatory info	rtable Quantity (RQ) for ormation, for the Reportable

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2-6

Product #: 882731 Name: G370LV12100 WHITE (VIBRIN) Desc: POLYESTER GEL COAT

From: BRENNTAG SPECIALTIES INC. To: OCEAN YACHTS INC. Monday, December 12, 2011

MSDS no. : 14511V1		G370LV12100
Section 15. Regulat	orý information	-
Other regulations	This section does not reference all applicable regulatory compliance lists.	
	TSCA: All ingredients are listed or compliant with TSCA.	· · · · · · · · · · · · · · · · · · ·
	DSL: All ingredients are listed or compliant with the NSNR.	•
	Proposition 65 Warning: This product contains a chemical(s) known to the State cancer, birth defects and/or reproductive harm.	of California to cause
	SARA 302 component(s): None.	
	SARA 313 component(s): Styrene, Methyl Methacrylate, Cobalt Compounds.	
	CERCLA(RQ): Styrene - 1000 lbs. (453.6 kg) Methyl Methacrylate - 1000 lbs. (453.6 kg)	Angelia (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1

Section 16. Other information

Prepared by

AOC, LLC - Corporate Regulatory Affairs.

DTN

LEGAL DISCLAIMER

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MSDS no. 15376V1

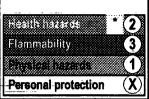
WHMIS (Canada)





Reactivity

HMIS (USA)



Protective clothing



B-2 D-2A D-2B

Specific hazard

	mical product and company identification	
Trade name	G370LV51020	
Product type	Gel Coat	
Chemical family	Aromatic.	
Material uses	Used in the manufacture of thermoset	plastic parts.
Manufacturer	AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards ide	ntification
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Titanium Dioxide: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. Talc: Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP. Methyl Methacrylate: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC. Silica, Amorphous: Classified 3 (not classifiable for human) by IARC. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database. Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.

MSDS no. : 15376V1		G370LV51020
Section 3. Composition/Information on Ingredien	ts	
Name [‡]	CAS#	% by weight
1) Styrene	100-42-5	26.5
2) Titanium Dioxide	13463-67-7	10 - 20
3) Aluminum Hydroxide	21645-51-2	10 - 20
-4) Talc	14807-96-6	5-10
5) Methyl Methacrylate	80-62-6	3.0
6) Silica, Amorphous	7631-86-9	1-5
7) Cobalt Compounds	Mixture	61-1

Section 4. First ai	d measures
Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive scap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Seek immediate medical attention.

Section 5. Fire fighting	measures
The product is:	Flammable liquid, Class IC.
Auto-Ignition temperature	790°F(421°C) Methyl Methacrylate
Flash point	75 - 89°F (24.8 - 32°C)
Flammable limits	Lower: 0.9% Upper: 12.5%
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.
Fire hazard	Flammable in the presence of open flames, sparks, or heat.
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.
Fire-fighting media and instructions	SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.

Small spill	ental release measures Absorb with an inert material and place in an appropriate waste disposal container.
Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.





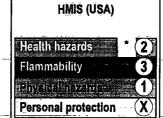
MSDS no. 15377V1

WHMIS (Canada)

Health

NFPA (USA) Fire

Reactivity



Protective clothing



B-2 D-2A D-2B

Specific hazard

Section 1. Che	mical product and company identification	Consideration Conference Conferen
Trade name	G370PA51020	
Product type	Gel Coat	
Chemical family	Aromatic.	
Material uses	Used in the manufacture of thermoset pl	astic parts.
Manufacturer	AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Titanium Dioxide: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. Methyl Methacrylate: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable
	for human) by IARC. Talc: Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP. Silica, Amorphous: Classified 3 (not classifiable for human) by IARC. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database. Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.

n	
" MSDS no. : 15377V1	G370PA51020
MODO LIGHT TOOLS IN	153/UPASTUZN

D 41 0	A	the state of the same and the s	on ingredients
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Name .	CAS#	% by weight
1) Styrene 2) Titanium Dioxide 3) Aluminum Hydroxide	100-42-5 13463-67-7 21645-51-2	28.7 10 - 20 10 - 20
4) Methyl Methacrylate 5) Talc	 80-62-6 14807-96-6	7.4 1 - 5
6) Silica, Amorphous 7) Cobalt Compounds	 7631-86-9 Mixture	1 - 5

Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Seek immediate medical attention.

Section 5. Fire fighting	measures	The second secon		
The product is:	Flammable liquid, Class IC.	The second secon		
Auto-ignition temperature	790°F(421°C) Methyl Methacrylate			
Flash point	75 - 89°F (24.8 - 32°C)	The second secon		· · · · · · · · · · · · · · · · · · ·
Flammable limits	Lower: 0.9% Upper: 12.5%			
Products of combustion	May produce carbon monoxide, carb	on dioxide, and irritating or toxic vapors,	gases or particulat	te.
Fire hazard	Flammable in the presence of open f	lames, sparks, or heat.		_ _
Explosion hazard	Can react with oxidizing materials. E polymerize when container is expose container which may cause the container which may be contained to the container which may be caused the container which may be caused the container which may be caused the container which may be contained to the	xplosive in the form of vapor when expos d to heat (fire) and polymerization will inc iner to rupture violently.	ed to heat or flam rease pressure in	e. Material may a closed
Fire-fighting media and instructions	LARGE FIRE: Evacuate surrounding Wear self-contained breathing appara	pam, dry chemical or water fog to extinguinates. Use carbon dioxide, foam, dry chatus (SCBA) and full fire-fighting protective revent pressure build-up, autoignition or control of the co	nemical or water for re clothing. Cool o	ontaining

Section 6. Accide	ntal release measures
Small spill	Absorb with an inert material and place in an appropriate waste disposal container.
Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.

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		Fax # (No 5-4016)	Fax#
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MAYS LANDING NJ	08330-0099		0003
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This MSDS complies w	ith 29 CFR 1910.1200	(The Hazard Commu	nication Standard)
		-	عاليا والمراج في المراجع
	SECTION I - Produc	t Identification	1
	ا شارک د چاپ اور د د د د د د د د د د د د د د د د د د د	# 	
		Maria A	V
Product Name: UN/NA Number:	W+708-NUU W	HITE NPG MARINE GE	L COAT
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Hazard Classification:	Planmable Liquid	er Resin	•
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	SECTION II - Haza:	rdous Components	

Ingredient	Cas No.	Percent OSHA-PEL	ACGIH-TLV NOTE
METHYL METHACRYLA (1) OSHA ceiling value	100-42-5 TE 80-62-6	29-36 50 ppm 7 04-05 100 ppm short term exposur	TWA 50 ppm (1) 100 ppm re limit (STEL) is
	SECTION III - PI	ivsical Data	
			· •
Property			Measurement
Initial Boiling Point	For Styrene		293.40 DEG F
	· · · · · · · · · · · · · · · · · · ·		@ 760.00 MMHG
	n jaron Jaron Albana alaman kanalasa		
Vapor Pressure	For Styrene		4.3 MMHG
(20 DEG C)	For Methyl Methacry	ate (MMA)	29.0 MMHG
Vapor Density	Air = 1		3.6
Tanada Amandanian			•
Specific Gravity			1.2 - 1.35
			@ 77.00 DEG F
			(25.00 DEG C)
Percent Non-volatiles			
			*
vaporation Rate	The second secon	· ·	Slower than Ether
	***********		· · · · · · · · · · · · · · · · · · ·

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MATERIAL SAFF Post-it* Fax Note

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Date 4

MATERIAL SAFETY DATA SHEET

Interplastic Corporation 1225 Willow Lake Blvd Vadnate Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

		• •		
attn: plant mgr/	SAFETY DIR		Issue Date:	te: 10/24/96 03/29/99 d: MSDSLET4
			Customer No	
The state of the s	angula dan aran aran aran aran aran aran aran	A Section of the Company of the Comp	Whee No:	003
This MSDS complies w	ith 29 CFR	1910.1200 (The H	Hazard Communi	cation Standard)
		I - Product Ident	ification	
in the second of			a alaga galar jar adi a laga g	en e
Product Name: UN/NA Number:	W-708-NUU UN1866	WHITE NI	PG MARINE GET	COAT
General or Generic ID: Hazard Classification:	Flammable	Liquid Liquid	Ln ·	
	SECTION	II - Hazardous (Components	
ranga ang ang ang ang ang ang ang ang ang		Cas No. Percer	nt OSHA PEL	ACCIH-TLV NOTE
Ingredient Unsaturated Polyester B Styrenc METHYL METHACRYLA (1) OSHA cailing value	TE is 100 nom	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short	36 50 ppm TW 35 100 ppm term exposure	A 50 ppm (1) 100 ppm : limit (STBL) is
Unsaturated Polyester B Styrenc METHYL METHACRYLA	TE is 100 nom	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short	36 50 ppm TW 35 100 ppm term exposure	A 50 ppm (1) 100 ppm : limit (STBL) is
Unsaturated Polyester B Styrenc METHYL METHACRYLA (1) OSHA cailing value 100 ppm. NIOSH rec ceiling.	TE is 100 ppm commends a	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short	36 50 ppm TM 35 100 ppm term exposure 8-hour TWA; 1	A 50 ppm (1) 100 ppm : limit (STBL) is
Unsaturated Polyester B Styrenc METHYL METHACRYLA (1) OSHA cailing value 100 ppm. NIOSH rec ceiling.	TE is 100 ppm commends a	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short limit of 50 ppm,	36 50 ppm TM 35 100 ppm term exposure 8-hour TWA; 1	A 50 ppm (1) 100 ppm : limit (STBL) is
Unsaturated Polyester B Styrenc NETHYL METHACRYLA (1) OSHA cailing value 100 ppm. NIOSH rec ceiling.	TE is 100 ppm commends a SECTION	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short. limit of 50 ppm,	36 50 ppm TM 35 100 ppm term exposure 8-hour TWA; 1	IA 50 ppm (1) 100 ppm : limit (STBL) is .00 ppm 15 minute
Unsaturated Polyester B Styrenc	TE is 100 ppm commends a SECTION For Styres	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short. limit of 50 ppm,	36 50 ppm TM 05 100 ppm term exposure 8-hour TWA; 1	IA 50 ppm (1) 100 ppm : limit (STBL) is .00 ppm 15 minute Measurement 293.40 DEG F @ 760.00 MMHG
Unsaturated Polyester R Styrenc	TE is 100 ppm commends a SECTION For Styres	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short. limit of 50 ppm, ON III - Physical	36 50 ppm TM 05 100 ppm term exposure 8-hour TWA; 1	IA 50 ppm (1) 100 ppm : limit (STEL) is :00 ppm 15 minute Measurement 293.40 DEG F @ 760.00 MMHG
Unsaturated Polyester R Styrenc	TE is 100 ppm commends a SECTION For Styres For Methy Air = 1	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short. limit of 50 ppm, ON III - Physical	36 50 ppm TM 05 100 ppm term exposure 8-hour TWA; 1	IA 50 ppm (1) 100 ppm 1imit (STEL) is 00 ppm 15 minute Measurement 293.40 DEG F @ 760.00 MMHG 4.3-MMHG 29.0 MMHG
Unsaturated Polyester R Styrenc	TE is 100 ppm commends a SECTION For Styres For Methy Air = 1	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short. limit of 50 ppm, ON III - Physical	36 50 ppm TM 05 100 ppm term exposure 8-hour TWA; 1	IA 50 ppm (1) 100 ppm 1imit (STEL) is 00 ppm 15 minute Measurement 293.40 DEG F 0760.00 MMHG 4.3-MMHG 29.0 MMIG 3.6
Unsaturated Polyester R Styrenc	TE is 100 ppm commends a SECTION For Styres For Methy Air = 1	See Index 100-42-5 29-3 80-62-6 04-0 and ACGIH short. limit of 50 ppm, ON III - Physical	36 50 ppm TM 05 100 ppm term exposure 8-hour TWA; 1	IA 50 ppm (1) 100 ppm 11mit (STEL) is 00 ppm 15 minute Measurement 293.40 DEG F 760.00 MMHG 4.3-MMHG 29.0 MMHG 3.6 1.2 - 1.35 9 77.00 DEG F

MATERIAL SAFETY DATA SHEET REVISION DATE: MAY 21, 2009

HK RESEARCH CORPORATION

PO Box 1809

908 Lenoir Road

Hickory, NC 28603

(828) 328-1721

********* PRODUCT IDENTIFICATION **********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: 8-5601

PRODUCT DESCRIPTION: AQUA MIST PATCHING GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

****** PRODUCT HAZARD SUMMARY *******

<CODE>

HEALTH:

<2>

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: <3>

* WARNING: FLAMMABLE LIQUID & VAPOR

REACTIVITY:

<2>

* CAUTION: UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

****** IMPORTANT COMPONENTS ********

INGREDIENT	CAS #	%	OSHA PEL	ACBIH-TLV
STYRENE MONOMER [1] UNSATURATED POLYESTER RESIN TITANIA MAGNESIUM SILICATE METHYL METHACRYLATE [1] ACRYLIC POLYMER	000100-42-5 MIXTURE 013463-67-7 014807-96-6 000080-62-6 015625-89-5	21 - 8 - 7 - 8	50 ppm 31 100 ppm 18 15 mg/m3 17 5 mg/m3 100 ppm 8 N/A	20 pps 20 pps 10 sg/s3 2 sg/s3 50 pps N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

----- PHYSICAL DATA -----

BOILING POINT, oC (oF): >145 (293)

VAPOR PRESSURE, mm Hg: <5 @ 20cC (68cF)

VAPOR DENSITY (AIR=1): 3.6 (styrene)

SOLUBILITY IN WATER: NEGLIGIBLE

SPECIFIC GRAVITY (H2D=1): 1.26 +/- 5% @ 25cC

PERCENT VOLATILE: 37

EVAPORATION RATE (ETHER=1):<1

APPEARANCE/ODOR: GREEN LIQUID WITH PUNGENT ODOR

***** FIRE AND EXPLOSION HAZARD DATA *******

FLASH POINT oC (oF): 30-35(87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, oC (oF): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

********* PRODUCT HEALTH HAZARD INFORMATION ********

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section), SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

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MATERIAL SAFETY DATA SHEET REVISION DATE: APRIL 2. 2008

HK RESEARCH CORPORATION PO Box 1809 908 Lenoir Road Hickory, NC 28603

EMERGENCY TELEPHONE

828-328-1721

(828) 328-1721

******** PRODUCT IDENTIFICATION ********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: 8-5662

PRODUCT DESCRIPTION: DARK GREEN NAI GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION DOT SHIP NAME: RESIN SOLUTION-UN1866

MOLECULAR WEIGHT: NA

******** PRODUCT HAZARD SUMMARY *********

HMIS (CODE)

HEALTH:

(2)

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

⟨3⟩

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

(2)

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

******** IMPORTANT COMPONENTS *********

INGREDIENT	CAS #	,	%	OSHA PEL	ACGIH-TLV
METHYL METHACRYLATE [1]	MIXTURE 000100-42-5 000080-62-6 014807-96-6 007631-86-9	7		100 ppm 50 ppm 100 ppm 5 mg/m3 20 mppcf	20 ppm 100 ppm 2 mg/m3 10 mg/m3

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

********* PHYSICAL DATA ********

BOILING POINT, oc (of): >145 (293)

VAPOR PRESSURE, mm Hg: (5 @ 20oc (68of))

VAPOR DENSITY (AIR=1): 3.6 (styrene)

SOLUBILITY IN WATER: NEGLIGIBLE

SPECIFIC GRAVITY (H20=1): 1:15 +/- 5% @ 25oc

PERCENT VOLATILE: 37

EVAPORATION RATE (ETHER=1):(1

APPEARANCE/ODOR: GREEN LIQUID WITH PUNGENT ODOR

****** FIRE AND EXPLOSION HAZARD DATA *******

FLASH POINT oC (oF): 30-35(87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, oC (oF): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.
NUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

******** PRODUCT HEALTH HAZARD INFORMATION *********

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

MATERIAL SAFETY DATA SHEET REVISION DATE: AUGUST 8, 2007

HK RESEARCH CORPORATION

PO Box 1809

908 Lenoir Road

Hickory, NC 28603 (828) 328-1721 EMERGENCY TELEPHONE

828-328-1721

******* PRODUCT IDENTIFICATION *********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: LHM-5601

PRODUCT DESCRIPTION: HydroShield LITE ADUA MIST GEL COAT

CHEMICAL FAMILY:

NA

DOT CLASS: FLAMMABLE LIQUID

MOLECULAR FORMULA:

NA

DOT SHIP NAME: RESIN SOLUTION--UN1866

MOLECULAR WEIGHT: NA

******* PRODUCT HAZARD SUMMARY ********

HMIS (CODE)

HEALTH:

(2)

* CAUTION!

MAY BE HARMFUL IF SWALLOWED OR INHALED

MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT

* MAY CAUSE ALLERGIC SKIN REACTION

* HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

(3)

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

(2)

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

****** IMPORTANT COMPONENTS ********

INGREDIENT	CAS #		%		OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN STYRENE MONOMER [1] TITANIA MAGNESIUM SILICATE MIXTURE METHYL METHACRYLATE [1] SILICON DIOXIDE	000100-42-5 013463-67-7 014807-96-6 015625-89-5 000080-62-6	11 8 1	27 - - - - 3	21 18		20 ppm 20 ppm 10 mg/m3 2 mg/m3 N/A 100 ppm 10 mg/m3
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REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

******* PHYSICAL DATA ********

BOILING POINT, of (oF): >145 (293) VAPOR PRESSURE, mm Hg: (5 @ 20oC (68oF)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE SPECIFIC GRAVITY (H20=1): 1.38 +/- 5% @ 25oC PERCENT VOLATILE: 30

EVAPORATION RATE (ETHER=1): (1

APPEARANCE/ODOR:

GREEN LIQUID WITH PUNGENT ODOR

****** FIRE AND EXPLOSION HAZARD DATA ******

FLASH POINT oC (oF): 30-35(87-95) FLAMMABILITY CLASSIFICATION: CLASS 1C AUTOIGNITION TEMPERATURE, oC (oF): 490 (914) FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1 BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers. L SUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

******** PRODUCT HEALTH HAZARD INFORMATION ********

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). page 2 of 5

MATERIAL SAFETY DATA SHEET REVISION DATE : MARCH 10. 2008

HK RESEARCH CORPORATION PO Box 1809 908 Lenoir Road

EMERGENCY TELEPHONE

Hickory, NC 28603 (828) 328-1721

********* PRODUCT IDENTIFICATION **********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: LHM-6615

PRODUCT DESCRIPTION: HydroShield LITE ICE BLUE GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA

******** PRODUCT HAZARD SUMMARY *********

HMIS (CODE)

HEALTH:

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

·(3)

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

(2)

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

INGREDIENT	CAS #		%		OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN STYRENE MONOMER [1]	MIXTURE 000100-42-5		- 27		50 ppm 50 ppm	20 ppm 20 ppm
MAGNESIUM SILICATE	014807-96-6	11		21		2 mg/m3
TITANIA	013463-67-7	3	*****	13	15 mg/m3	10 mg/m3
MIXTURE	015625-89-5	1	***	11	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6		4	•	100 ppm	100 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

13 NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

******* PHYSICAL DATA ********

BOILING POINT, oC (oF):)145 (293)

VAPOR PRESSURE, mm Hg: (5 @ 20oC (68oF)

VAPOR DENSITY (AIR=1): 3.6 (styrene)

SOLUBILITY IN WATER: NEGLIGIBLE

SPECIFIC GRAVITY (H2O=1): 1.29 +/- 5% @ 25oC

PERCENT VOLATILE: 31

EVAPORATION RATE (ETHER=1):(1

APPEARANCE/ODOR: BLUE LIQUID WITH PUNGENT ODOR

The second of th

****** FIRE AND EXPLOSION HAZARD DATA *******

FLASH POINT oC (oF): 30-35(87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, oC (oF): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

NUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

******** PRODUCT HEALTH HAZARD INFORMATION *********

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vositing and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).

MATERIAL SAFETY DATA SHEET REVISION DATE : SEPTEMBER 8, 2009

HK RESEARCH CORPORATION

PO Box 1809

908 Lenoir Road

Hickory, NC 28603

(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

******** PRODUCT IDENTIFICATION **********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: LHM-2900

PRODUCT DESCRIPTION: Hydroshield LITE WHITE GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID

MOLECULAR FORMULA: NA MOLECULAR WEIGHT: NA

DOT SHIP NAME: RESIN SOLUTION--UN1866

******* PRODUCT HAZARD SUMMARY ********

HMIS (CODE)

HEALTH:

(2)

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
 - * MAY CAUSE ALLERGIC SKIN REACTION
 - * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

(3)

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

(2)

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

INGREDIENT	CAS #		%		OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MIXTURE	23	<u></u>	33	100 ppm	20 ppm
STYRENE MONOMER [1]	000100-42-5		27		50 ppm	20 ppm
TITANIA	013463-67-7	11	-	21	15 mg/m3	10 mg/m3
MAGNESIUM SILICATE	014807-96-6	10	_	20	5 mg/m3	2 mg/m3
ACRYLIC POLYMER	015625-89-5	1		9	N/A	N/A
METHYL METHACRYLATE [1]	000080-62-6		3		100 ppm	50 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

213 NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

******** PHYSICAL DATA ********

BOILING POINT, oC (oF): >145 (293)
VAPOR PRESSURE, mm Hg: (5 @ 20oC (68oF)
VAPOR DENSITY (AIR=1): 3.6 (styrene)
NEGLIGIBLE

SPECIFIC GRAVITY (H20=1): 1.38 +/- 5% @ 250C

PERCENT VOLATILE: 30

EVAPORATION RATE (ETHER=1): (1

APPEARANCE/ODOR:

WHITE LIQUID WITH PUNGENT ODOR

****** FIRE AND EXPLOSION HAZARD DATA ********

FLASH POINT oC (oF): 30-35(87-95) FLAMMABILITY CLASSIFICATION: CLASS 1C AUTOIGNITION TEMPERATURE, OC (oF): 490 (914) FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers. ÚNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). SKIN: ______

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). page 2 of 5

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

CHEMTREO 24-Hour Emergency Telephone (800) 424-9300

ATTN: PL	ANT MGR/SAFETY DIR	Date Printed: 05/03/07
	The second secon	Revision Date: 04/27/04
		MODO DILA ID. MODOTOMA
ا مواددها خان	The second secon	MSDS File ID: MSDSLET4 Customer No:
	The second secon	
		Warehouse No: 001
This MSDS compl	ies with 29 CFR 1910.1200 (Hazard Communication).
	SECTION I - PRODUCT	IDENTIFICATION
Product Name		
General as a	NAC COMPU-COLOR GE	LCOAT
Peneral Of Gene	NAC COMPU-COLOR GE ric ID: Unsaturated Polyes	ter Resin
******* CTODDTTT	Catlon: Flammable Limita	in a programme of the contract
enrbbrud Name:	Resin Solution, 3,	UN1866, PG II
		and the second of the second o
கடைகளைகளை இ றை இது இது இது இ		nazanga sa arawa araw Arawa arawa ara
	SECTION II - HAZARD	OUS COMPONENTS
and the second s		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
INGREDIENT	r cas no	PERCENT OSHA-PEL ACGIH-TL NOTE
94 Met 1		
Unsaturated Poly	Yester Base Resin See Than	X None-Estb. None-Est 33-36 50 ppm TWA 50 ppm (1) 04-05 100 ppm 100 ppm
Styrene	100-42-E	None-Esta, None-Est
METHYL MET	THACRYLATE BO-62-6	33-36 50 ppm TWA 50 ppm (1)
(1) OSHA has for	mally endorsed a street	ndustry proposal for a voluntary
50 ppm PEL f	for worknings are a stylene 1	ndustry proposal for a voluntary
upon by ren	cor workbrace exposure to a	tyrene. This proposal was agreed
The ACCIU we	cesculatives of the UPR indi	tyrene. This proposal was agreed ustry. The OSHA STEL is 100 ppm.
and the great	from 100	styrene from 50 ppm to 20 ppm,
min cree BIEI	from 100 ppm to 40 ppm.	
	SECTION III - PH	YSICAL DATA
PROPERTY		
· · · · · ·		MEASUREMENT
Initial Boiling	For Methyl Methacrylate	
Point	Menuaciates	212 Deg F (100 Deg C)
	· · · · · · · · · · · · · · · · · · ·	
		@ 760.00 mm Hg
Vapor Pressure	For Moth-1 waste	@ 760.00 mm Hg
Vapor Pressure	For Methyl Methacrylate	@ 760.00 mm Hg 35 mm Hg
Vapor Pressure	For Methyl Methacrylate	@ 760.00 mm Hg 35 mm Hg
	**************************************	@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C)
Vapor Pressure Specific Gravity	**************************************	@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C) 1.15 - 1.20
	**************************************	@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C) 1.15 - 1.20
Specific Gravity		@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C) 1.15 - 1.20 @ 77 Deg F (25 Deg C)
		@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C) 1.15 - 1.20
Specific Gravity Vapor Density	Air = 1	@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C) 1.15 - 1.20 @ 77 Deg F (25 Deg C) 3.6
Specific Gravity	Air = 1	@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C) 1.15 - 1.20 @ 77 Deg F (25 Deg C) 3.6
Specific Gravity Vapor Density	Air = 1	@ 760.00 mm Hg 35 mm Hg 68 Deg F (20 Deg C) 1.15 - 1.20 @ 77 Deg F (25 Deg C) 3.6

PRODUCT: NAC COMPU-COLOR GELCOAT

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point:

73 Deg F (22.7 Deg C) for Volatile Component

Methyl methacrylate

Flammable:

(Lowest Value of Styrene) Lower - 1.7%

(Upper Value of Styrene)

Upper - 8.2%

Extinguishing Media: Foam, carbon dioxide, dry chemical, or water fog.

Hazardous Decomposition Products: May form toxic materials such as carbon dioxide, carbon monoxide, and various

hydrocarbons.

Special Firefighting Procedures:

Wear self-contained breathing apparatus with a full facepiece operated in pressure demand or other positive pressure mode when

fighting fires.

Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by ignition sources at locations distant from material handling point.

Never use welding or cutting torch on or near drum (even empty) because product vapor can ignite explosively.

SECTION V - HEALTH DATA

Permissible Exposure Level: Not established for product. See Section II.

POTENTIAL HEALTH EFFECTS

- Eyes Can cause severe irritation, redness, tearing, blurred vision.
- Skin Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.
- Inhalation Excessive inhalation of vapors can cause masal irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and even asphyxiation.
- Swallowing Can cause gastrointestinal irritation, nausea, vomiting, diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis.



MATERIAL SAFETY DATA SHEET REVISION DATE: MARCH 29, 2011

HK RESEARCH CORPORATION PO Box 1809

EMERGENCY TELEPHONE

908 Lenoir Road Hickory, NC 28603

Hickory, No. 200-1 (828) 328-1721

The second secon TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-2900

PRODUCT DESCRIPTION: WHITE PATCHING GEL COAT CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID

MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION -- UN1866

MOLECULAR WEIGHT: NA

********* PRODUCT HAZARD SUMMARY *********

HMIS <CODE>

HEALTH:

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

<3>

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

<2>

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

INGREDIENT	CAS #	8		OSHA PEL	ACGIH-TLV
STYRENE MONOMER [1] UNSATURATED POLYESTER RESIN TITANIA MAGNESIUM SILICATE METHYL METHACRYLATE [1] ACRYLIC POLYMER	000100-42-5 MIXTURE 2 013463-67-7 1 014807-96-6 000080-62-6 015625-89-5	20 - .1 - 6 -	30 21 16 7	100 ppm 15 mg/m ³ 5 mg/m ³ 100 ppm	20 ppm 20 ppm 10 mg/m ³ 2 mg/m ³ 50 ppm N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313



MATERIAL SAFETY DATA SHEET REVISION DATE: JANUARY 12, 2010

HK RESEARCH CORPORATION

PO Box 1809

EMERGENCY TELEPHONE

908 Lenoir Road

Hickory, NC 28603 (828) 328-1721

828-328-1721

********* PRODUCT IDENTIFICATION ********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: B-6615

PRODUCT DESCRIPTION: ICE BLUE PATCHING GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866

MOLECULAR WEIGHT: NA

********* PRODUCT HAZARD SUMMARY ********

HMIS <CODE>

HEALTH:

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

<3>

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

<2>

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

******* IMPORTANT COMPONENTS *********

INGREDIENT	· · · · · · · · · · · · · · · · · · ·	8		OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER R STYRENE MONOMER [1] MAGNESIUM SILICATE TITANIA METHYL METHACRYLATE [1] ACRYLIC POLYMER	ESIN MIXTURE 000100-42 014807-96 013463-67	-5 30 -6 8 - -7 1 - -6 6	18 11	50 ppm 5 mg/m ³	20 ppm 20 ppm 2 mg/m ³ 10 mg/m ³ 50 ppm N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

[1] NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

MATERIAL SAFETY DATA SHEET REVISION DATE: MARCH 10. 2008

HK RESEARCH CORPORATION

PO Box 1809

EMERGENCY TELEPHONE

908 Lenoir Road

Hickory, NC 28603

828-328-1721

(828) 328-1721

******* PRODUCT IDENTIFICATION *********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: B-6615

PRODUCT DESCRIPTION: ICE BLUE PATCHING GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID

MOLECULAR FORMULA: NA MOLECULAR WEIGHT: NA

DOT SHIP NAME: RESIN SOLUTION--UN1866

************PRODUCT HAZARD SUMMARY *********

HMIS (CODE)

HEALTH:

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
-) * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
 - * MAY CAUSE ALLERGIC SKIN REACTION
 - * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

(3)

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

(2)

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

INGREDIENT	CAS #		*		OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN STYRENE MONOMER [1] MAGNESIUM SILICATE TITANIA METHYL METHACRYLATE [1] MIXTURE	MIXTURE 000100-42-5 014807-96-6 013463-67-7 000080-62-6 015625-89-5	8	30 -	18	50 ppm 5 mg/m3	20 ppm 20 ppm 2 mg/m3 10 mg/m3 100 ppm N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR-HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINGENS)

NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

MATERIAL SAFETY DATA SHEET REVISION DATE : APRIL 2, 2008

HK RESEARCH CORPORATION

PO Box 1809

908 Lenoir Road

Hickory, NC 28603

(828) 328-1721

EMERGENCY TELEPHONE

828-328-1721

******* PRODUCT IDENTIFICATION *********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: LHM-5562

PRODUCT DESCRIPTION: HydroShield LITE SEAFOAM GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FEAMMABLE LIQUID MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION DOT SHIP NAME: RESIN SOLUTION---UN1866

MOLECULAR WEIGHT: NA

******** PRODUCT HAZARD SUMMARY *********

HMIS (CODE)

HEALTH:

(2)

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

(2)

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

******* IMPORTANT COMPONENTS *********

INGREDIENT	CAS #	%		ÖSHA PEL:	ACGIH-TLV
UNSATURATED POLYESTER RESIN STYRENE MONOMER [1] MAGNESIUM SILICATE TITANIA MIXTURE METHYL METHACRYLATE [1]	MIXTURE 26 000100-42-5 014807-96-6 11 013463-67-7 015625-89-5 0000080-62-6	27 l – 3 – l –	21 13	50 ppm 5 mg/m3	20 ppm 20 ppm 2 mg/m3 10 mg/m3 N/A 100 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS. COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINGGENS)

1.1 NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

MATERIAL SAFETY DATA SHEET REVISION DATE : FEBRUARY 6, 2009

HK RESEARCH CORPORATION PO Box 1809 908 Lenoir Road Hickory, NC 28603 (828) 328-1721

EMERGENCY TELEPHONE-

********* PRODUCT IDENTIFICATION *********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: BP-2145

PRODUCT DESCRIPTION: HydroShield LITE VIKING WHITE GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTIO

MOLECULAR WEIGHT: NA

DOT SHIP NAME: RESIN SOLUTION--UN1866

********* PRODUCT HAZARD SUMMARY *********

HMIS (CODE)

HEALTH:

(2)

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
-) * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY

(2)

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: (---)

********* IMPORTANT COMPONENTS ********

INGREDIENT	CAS #	*	OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN STYRENE MONOMER [1] TITANIA MAGNESIUM SILICATE ACRYLIC POLYMER METHYL METHACRYLATE [1]	MIXTURE 2.000100-42-5 013463-67-7 1 014807-96-6 10 015625-89-5 000080-62-6	1 - 21 0 - 20	50 ppm 15 ug/u3	100 ppm 2 mg/m3 10 mg/m3 20 ppm 20 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

() NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

BOBFINE

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

DOB F. WIE	(651) 481-68	360
CH	EMTREC 24-Hour E	mergency Te	elephone (800) 424-9300
ATTN: PLAN	T MGR/SAFETY DIR		Issue Date: Revision Date: 06/08/04 MSDS File ID: MSDSLET4
			Customer No: 003
This MSDS complie	s with 29 CFR 19	10.1200 (Ha	azard Communication).
	SECTION I	- PRODUCT I	DENTIFICATION
Product Name: General or Generi Hazard Classifica Shipping Name:	W-1061-LV c ID: Unsaturat tion: Flammable	L ed Polyeste Liquid	HITE NPG MARINE GRADE LOW HAP
	SECTION II	- HAZARDOU	IS COMPONENTS
<u>```</u>	n in the mention consultation and	-	PERCENT OSHA-PEL ACGIH-TL NOTE
Styrene METHYL METH (1) OSHA has form 50 ppm PEL form upon by representations The ACGIH reco	ACRYLATE ally endorsed a r workplace expo sentatives of th	100-42-5 80-62-6 styrene ind sure to sty e UPR indus e TLV for s 40 ppm.	70-71 None-Estb. None-Est 25-27 50 ppm TWA 50 ppm (1) 04-05 100 ppm 100 ppm dustry proposal for a voluntary rene. This proposal was agreed stry. The OSHA STEL is 100 ppm. styrene from 50 ppm to 20 ppm,
	SECTION	III - PHYS	SICAL DATA
PROPERTY			MEASUREMENT
Initial Boiling Point			212 Deg F (100 Deg C) @ 760.00 mm Hg
Vapor Pressure			•
Specific Gravity			1.26-1.32 @ 77 Deg F (25 Deg C)
Vapor Density			· · · · · · · · · · · · · · · · · · ·
oration Rate	Butylacry	late=1	3.1





MSDS no. 14666V1

WHMIS (Canada)



NFPA (USA) Fire

, Health



Reactivity

HMIS (USA)



Protective clothing







B-2 D-2A D-2B

Specific hazard

Section 1. Chemical product and company identification Trade name G370LV81423 Product type Gel Coat Chemical family Aromatic. Material uses Used in the manufacture of thermoset plastic parts. Manufacturer AOC, LLC In case of emergency 950 Highway 57 East Collierville, TN U.S.A. 38017 CHEMTREC (US): 24 hours/7 days (800) 424-9300 Website: www.aoc-resins.com CANUTEC (Canada): 24 hours/7 days (613) 996-6666 Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri

Section 2. Hazards ide	ntification
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Titanium Dioxide: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. Talc: Classified A2 (suspected for human) by ACGIH. Classified 1 (proven for human) by IARC. Classified 1 (known) by NTP. Methyl Methacrylate: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC. Silica, Amorphous: Classified 3 (not classifiable for human) by IARC. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database. Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.

MSDS no. :14666V1	. •		•	1		G370LV81423 ·
Section 3. Composition	n/informati	on on ingre	lients			
Nam	18				CAS#	% by weight
1) Styrene	•				100-42-5	26.6
2) Titanium Dioxide					13463-67-7	20 - 30
3) Aluminum Hydroxide	•		-	-	21645-51-2	5 - 10
4) Talc					14807-96-6	5-10
5) Methyl Methacrylate		da see a de la composition della composition del			80-62-6	- 3.0
6) Silica, Amorphous					7631-86-9	1-5
7) Cobalt Compounds	رب است به پدید			· · · · · · · · · · · · · · · · · · ·	Mixture	0.1 - 1

Section 4. First al	d measures
Eye contact	Flush with a continuous flow of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Use of buffered baby shampoo will aid in removal. Seek medical attention.
Skin contact	Gently and thoroughly wash the contaminated skin with running water and non-abrasive scap. If irritation persists, seek medical attention.
Inhalation	Move the victim to a safe area as soon as possible. Allow the victim to rest in a well-ventilated area. If breathing is difficult, give oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Ingestion	Do not induce vorniting. Seek immediate medical attention.

Section 5. Fire fighting	Section 5. Fire fighting measures						
The product is:	Flammable liquid, Class IC.						
Auto-ignition temperature	790°F(421°C) Methyl Methacrylate						
Flash point	75 - 89°F (24.8 - 32°C)						
Flammable limits	Lower: 0.9% Upper: 12.5%						
Products of combustion	May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.						
Fire hazard	Flammable in the presence of open flames, sparks, or heat.						
Explosion hazard	Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.						
Fire-fighting media and Instructions	SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish. LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, autoignition or explosion. Prevent run off to sewers or other water ways.						

Large spill	Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas.
Small spill	Absorb with an inert material and place in an appropriate waste disposal container.
Section 6. Acc	idental release measures

Effective Date: 09/21/2009

Supersedes Date: Not applicable.

Page: 2/6

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

C	HEMTREC 24-Hour Emergence	y Telephone (800) 424-9300
ATTN: PLA	NT MGR/SAFETY DIR	Date Printed: 05/03/07 Revision Date: 04/27/04 MSDS File ID: MSDSLET4 Customer No: Warehouse No: 001
This MSDS compli	es with 29 CFR 1910.1200	(Hazard Communication).
	SECTION I - PRODUC	
Product Name: General or General Hazard Classifica Shipping Name:	NAC COMPU-COLOR of the ID: Unsaturated Polye ation: Flammable Liquid Resin Solution,	UN1866, PG II
	SECTION II - HAZAR	DOUS COMPONENTS
50 ppm PEL foupon by representation The ACGIH recard the STEL	Ester Base Resin See Ind 100-42- IACRYLATE 80-62-6 mally endorsed a styrene or workplace exposure to	PERCENT OSHA-PEL ACGIH-TL NOTE EX None-Estb. None-Est 5 33-36 50 ppm TWA 50 ppm (1) 04-05 100 ppm 100 ppm industry proposal for a voluntary styrene. This proposal was agreed dustry. The OSHA STEL is 100 ppm. r styrene from 50 ppm to 20 ppm,
	SECTION III - P	HYSICAL DATA
PROPERTY	***	MEASUREMENT
Initial Boiling Point	For Methyl Methacrylate	212 Deg F (100 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Methyl Methacrylate	35 mm Hg 68 Deg F (20 Deg C)
Specific Gravity		1.15 - 1.20 @ 77 Deg F (25 Deg C)
apor Density	Air = 1	3.6
poration Rate	Butylacrylate=1	3.1



INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

CHEMTREO 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR

Date Printed: 05/03/07
Revision Date: 04/27/04
MSDS File ID: MSDSLET4

Customer No: Management Warehouse No: 001

This MSDS complies with 29 CFR 1910.1200 (Hazard Communication).

SECTION I - PRODUCT IDENTIFICATION

Product Name:

General or Generic ID:

Hazard Classification:

Shipping Name:

NAC COMPU-COLOR GENCOAT

Unsaturated Polyester Resin

Flammable Liquid

Resin Solution, 3, UN1866, PG II

SECTION II - HAZARDOUS COMPONENTS

INGREDIENT CAS NO. PERCENT OSHA-PEL ACGIH-TL NOTE

Unsaturated Polyester Base Resin See Index None-Estb. None-Est

Styrene 100-42-5 33-36 50 ppm TWA 50 ppm

METHYL METHACRYLATE 80-62-6 04-05 100 ppm 100 ppm

(1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to the contract of t 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm.

SECTION III - PHYSICAL DATA

MEASUREMENT

Initial Boiling For Methyl Methacrylate 212 Deg F (100 Deg C)

@ 760.00 mm Hg

Vapor Pressure For Methyl Methacrylate 35 mm Hg 68 Deg F (20 Deg C)

Specific Gravity

1.15 - 1.20 @ 77 Deg F (25 Deg C)

Vapor Density

Evar ration Rate

Butylacrylate=1 3.1

MATERIAL SAFETY DATA SHEET REVISION DATE: FEBRUARY 5, 2008

HK RESEARCH CORPORATION PO Box 1809

EMERGENCY TELEPHONE

908 Lenoir Road Hickory, NC 28603

(828) 328-1721

********** PRODUCT IDENTIFICATION ********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: 5-2900

CHEMICAL FAMILY: NA

PRODUCT DESCRIPTION: WHITE PATCHING GEL COAT

DOT CLASS: FLAMMABLE LIQUID

MOLECULAR FORMULA: NA MOLECULAR WEIGHTI NA

DOT SHIP NAME : RESIN SOLUTION -- UN1866

****** PRODUCT HAZARD SUMMARY *********

HMIS <CODE>

HEALTH

* CAUTION!

* MAY BE HARMFUL IF SWALLOWED OR INHALED

. MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT

. MRY CAUSE ALLERGIC SKIN REACTION

. HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY:

<3>

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY

- CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

****** IMPORTANT COMPONENTS ******

INGREDIENT		CAS #		Z		OSHA PEL	ACGIH-TLY
STYRENE MONOMER [1] UNBATURATED POLYESTER RESIN TITANIA MAGNESIUM SILICATE METHYL METHACRYLATE [1] MIXTURE	•	000100-42-5 MIXTURE 013463-67-7 014607-76-6 000060-62-6 015625-89-5	22 8 7	31 - - - 8	32 18 17	50 ppm 50 ppm 15 mg/e3 5 mg/e3 100 ppm N/A	20 ppm 20 ppm 20 mg/m 2 mg/m 100 ppm N/A

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1. 0% (0.1% FOR CARCINGGENS)

NOTE: This chemical subject to reporting requirements under BARA Title III. Section 313 page 1 of 5



Material Safety Data Sheet 2-b

Gel Coat

766W 8183 #14 WHITE

Base

MSDS No.

Not available.

Product and Company Identification 1.

Product Trade Name

766W 8183 #14 WHITE

Synonyms

766W 8183 #14 WHITE 5776W90065

766W 8183 #14 WHITE

Chemical Family

Not available.

Packaging **Product Type** Not available. Not available.

Product Use

Not available.

Manufactured/ Supplied

VALSPAR - ELKHART

28335 CLAY ST.

ELKHART IN: 46517

Daytime Phone: 219-522-1062 Emergency Phone: 800-424-9300 Validation Date

24 January 2002

Product Code:

5776W90065ZF

Internal Code

Not available.

Description

#14 WHITE BASE OLD#: 766W8183

2. Composition and Information on Hazardous Ingredients

Ingredient Name	CAS#	% by Weight	Exposure Limits	Vapor Pressure	LEL-UEL
1) STYRENE MONOMER	100-42-5	30-40	ACGIH (United States, 1994). Skin	0.6 kPa (4.5 mmHg) (@	0.9 %
,			TWA: 20 ppm	20°C)	
	Transference Area of the		ACGIH (United States,		
			1994). Skin		
	was the second of the second		STEL: 40 ppm	4	•
·			OSHA (United States,		
			1989).		
			TWA: 50 ppm		
			OSHA (United States,		
		•	1989).		
	The second of th	44 14 14	STEL: 100 ppm		
•			OSHA (United States,		
· ·	e e e e e e e e e e e e e		1989).	•	
			CEIL: 200 ppm		
			NIOSH (United States,		
		•	1994).	•	
			TWA: 50 ppm		
			NIOSH (United States,		and the second s
*	The second secon	e e e	1994).		·
	** *** *** **		STEL: 100 ppm		
2) METHYL METHACRYLATE	80-62-6	1.5-4	ACGIH (United States,	3.9 kPa (29	2.1 %
the second second	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	"	1996).	mmHg) (@	//
			TWA: 100 ppm	20°C)	•
	· · · · · · · · · · · · · · · · · · ·		OSHA (United States,	-y -y	
			1989).	•	• • •
			TWA: 100 ppm		
			NIOSH (United States,	• •	
•	•		1994).		ere eine eine eine eine eine eine eine e
<i>)</i>			TWA: 100 ppm		
3) TALC	14807- 96 -6	8-13	ACGIH (United States,	Not available.	Net evelleble
•		U , U	1996).	MOL GARIIROIR.	Not available.
			TWA: 2 mg/m³		
		,*	OSHA (United States,		
<u>.</u>	and the second s		1989). Notes: Respirable		
			TWA: 2 mg/m ³		
			NIOSH (United States,		•
•			1994). Notes: Respirable		
	•		TWA: 2 mg/m ³		•
4) HYDROXYLATED SILICON DI	IOXIDE 112926-00-8	1.5-4	ACGIH (United States,	Not available.	Not available
•			· / amma amma,	TOL GYGIIGDIB.	Not available.
	15		•		OYSBD09

Not available.

Page: 2/6

Not available.

1994).

TWA: 10 mg/m³ **OSHA (United States,**

1989).

TWA: 6 mg/m³

5) TITANIUM DIOXIDE

13483-67-7

13-20

ACGIH (United States,

1996).

TWA: 10 mg/m² OSHA (United States. 1989). Notes: Total

TWA: 10 mg/m³

Note: See section 8 for occupational exposure limits and section 11 for LC50/LD50 information.

Hazards Identification 3.

Primary Hazards and Critical

Effects

WARNING

CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: CARDIOVASCULAR SYSTEM, RESPIRATORY TRACT, EYES, EYE, LENS OR CORNEA.

FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY BE HARMFUL IF INHALED.

MAY CAUSE EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION:

POSSIBLE CANCER HAZARD

CONTAINS MATERIAL WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA.

Risk of cancer depends on duration and level of exposure. Keep away from heat, sparks and flame. Avoid contact with eyes. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Physical/Chemical hazards

Human Health Hazards

Flammable.

Harmful by inhalation.

Irritating to eyes and skin.

Possible risks of irreversible effects. May cause sensitization by skin contact.

Environmental Hazards

: Not applicable.

First Aid Measures 4.

Eye contact

Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation persists, seek medical attention.

Skin contact

Wash with soap and water. Remove contaminated clothing and shoes. If irritation persists, seek medical attention.

Inhalation

: Remove to fresh air. If not breathing, administer artificial respiration and seek medical attention,

Ingestion

: Wash out mouth with water if person is conscious. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed by a physician. Seek immediate medical attention.

Fire-Fighting Measures

Extinguishing Media

: In case of fire, use water spray (fog), foam, dry chemical, or CO2. Use foam or all purpose dry chemicals to extinguish.

Fire-Fighting Procedures

: Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout

Fire/Explosion Hazards

: Flammable liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous Decomposition **Products**

: These products are carbon oxides (CO, CO2). Some metallic oxides.

OYSBD097

MATERIAL SAFETY DATA SHEET REVISION DATE : APRIL 23, 2013

HK RESEARCH CORPORATION

PO Box 1809

EMERGENCY TELEPHONE

908 Lenoir Road

Hickory, NC 28603

828-328-1721

(828) 328-1721

******** PRODUCT IDENTIFICATION *********

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER:

MIXTURE PRODUCT CODE: HD-6615

PRODUCT DESCRIPTION: ICE BLUE GEL COAT

الراز والمستكل المخال فالمساعدة الماسان الساب

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID
MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA PACKING GROUP: PGIII

******* PRODUCT HAZARD SUMMARY ********

HMIS (CODE)

HEALTH:

(2)

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: (3)

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

******* IMPORTANT COMPONENTS ********

INGREDIENT	CAS #	*		OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN STYRENE MONOMER [1] MAGNESIUM SILICATE ACRYLIC POLYMER TITANIA METHYL METHACRYLATE [1]	MIXTURE 000100-42-5 014807-96-6 015625-89-5 013463-67-7 000080-62-6	4 - 4 - 3 -	9 14 14	50 ppm 15 mg/m3 N/A	20 ppm 20 ppm 2 mg/m3 N/A 10 mg/m3 50 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINGGENS)

NOTE: This chemical subject to reporting requirements under 13 SARA Title III, Section 313

****** PHYSICAL DATA ********

BOILING POINT, oC (oF):)145 (293)

VAPOR PRESSURE, mm Hg: (5 @ 20oC (68oF)

VAPOR DENSITY (AIR=1): 3.6 (styrene)

SOLUBILITY IN WATER: NEGLIGIBLE

SPECIFIC GRAVITY (H2O=1): 1.23 +/- 5% @ 25oC

PERCENT VOLATILE: 32

EVAPORATION RATE (ETHER=1):(1

APPEARANCE/ODOR: BLUE LIQUID WITH PUNGENT ODOR

TOWN WOULD WELL ESTEED WELL FOR COMPLETE

****** FIRE AND EXPLOSION HAZARD DATA ******

FLASH POINT oC (oF): 30-35(87-95)
FLAMMABILITY CLASSIFICATION: CLASS 1C
AUTOIGNITION TEMPERATURE, oC (oF): 490 (914)
FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1
BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

******* PRODUCT HEALTH HAZARD INFORMATION *********

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).



MATERIAL SAFETY DATA SHEET REVISION DATE: NOVEMBER 14, 2011

HK RESEARCH CORPORATION PO Box 1809 ----

908 Lenoir Road

Hickory, NC 28603 (828) 328-1721

EMERGENCY-TELEPHONE

828-328-1721

******** PRODUCT IDENTIFICATION ********* The state of the s

TRADE NAME: UNSATURATED POLYESTER GEL COAT IN MONOMER

CAS NUMBER: MIXTURE PRODUCT CODE: LHM-2900

PRODUCT DESCRIPTION: HydroShield LITE WHITE GEL COAT

CHEMICAL FAMILY: NA DOT CLASS: FLAMMABLE LIQUID

MOLECULAR FORMULA: NA DOT SHIP NAME: RESIN SOLUTION--UN1866
MOLECULAR WEIGHT: NA PACKING GROUP PGIII

******** PRODUCT HAZARD SUMMARY ********

HMIS <CODE>

HEALTH:

<2>

- * CAUTION!
- * MAY BE HARMFUL IF SWALLOWED OR INHALED
- * MAY BE IRRITATING TO THE SKIN EYES AND RESPIRATORY TRACT
- * MAY CAUSE ALLERGIC SKIN REACTION
- * HEATED MATERIAL MAY CAUSE THERMAL BURNS

FLAMMABILITY: <3>

* WARNING! FLAMMABLE LIQUID & VAPOR

REACTIVITY:

<2>

* CAUTION! UNSTABLE AT HIGH TEMPERATURES

SPECIFIC HAZARD: <--->

INGREDIENT	CAS #		용		OSHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN STYRENE MONOMER [1] TITANIA MAGNESIUM SILICATE ACRYLIC POLYMER METHYL METHACRYLATE [1]	MIXTURE 000100-42-5 013463-67-7 014807-96-6 015625-89-5 000080-62-6	11	26 -	33 21 20 9	100 ppm 50 ppm 15 mg/m ³ 5 mg/m ³ N/A 100 ppm	20 ppm 20 ppm 10 mg/m ³ 2 mg/m ³ N/A 50 ppm

REMAINING COMPONENTS NOT DETERMINED TO BE HAZARDOUS AND/OR HAZARDOUS COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINOGENS)

NOTE: This chemical subject to reporting requirements under [1] SARA Title III, Section 313

****** PHYSICAL DATA *********

BOILING POINT, °C (°F):

>145 (293)

VAPOR PRESSURE, mm Hg: <5 @ 20°C (68°F)

VAPOR DENSITY (AIR=1): 3.6 (styrene)
SOLUBILITY IN WATER: NEGLIGIBLE

SPECIFIC GRAVITY (H2O=1): 1.38 +/- 5% @ 25°C

PERCENT VOLATILE: 29

EVAPORATION RATE (ETHER=1):<1

APPEARANCE/ODOR: WHITE LIQUID WITH PUNGENT ODOR

****** FIRE AND EXPLOSION HAZARD DATA *******

FLASH POINT °C (°F): 30-35(87-95)

FLAMMABILITY CLASSIFICATION: CLASS 1C

AUTOIGNITION TEMPERATURE, °C (°F): 490 (914)

FLAMMABILITY LIMITS IN AIR (% by volume): LOWER: 1.1 UPPER: 6.1

BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all-purpose or polar AFFF foam or water spray to extinguish fire. Water or foam may cause frothing, with further application leading to boilover. Foam may have limited effectiveness on three dimensional fires. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from source of ignition. Do not flush down public sewers.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Fire may produce poisonous or irritating gas, fumes or vapor. Excessive heat may trigger polymerization of confined material. Containers may explode in heat of fire. Styrene vapors are uninhibited and may form polymers in vents or flame arrestors of storage tanks, resulting in stoppage of vents. Exposed firefighters should wear MSHA/NIOSH approved self-contained breathing apparatus, with full face mask and full protective equipment.

ROUTE OF EXPOSURE

INGESTION:

Moderately Toxic. May cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section). SKIN:

Moderately Irritating. Repeated or prolonged skin contact may cause reddening, inflammation or blistering. May cause allergic reactions in some individuals. Contact with heated material may cause thermal burns. Exposure may cause symptoms similar to those listed under "Inhalation" (see Inhalation section).



MATERIAL SAFETY DATA SHEET REVISION DATE: AUGUST 19, 2009

	TO THE ACCUSATION OF THE ACCUSATION AND ACCUSATION AND ACCUSATION ASSESSMENT AND ACCUSATION ASSESSMENT ACCUSATION ACCUSAT			
HK RESEARCH CORPORATION	· · · · · · · · · · · · · · · · · · ·			Northwest and a committee of the committ
PO Box 1809		EMERGENC	Y TELEPHON	2
908 Lenoir Road	The second second second second			- 1 F MARK 1500 W
Hickory, NC-28603		828-	328-1721	
(828) 328-1721-				
the second of th	the second second second second			* * * * * * * * * * * * * * * * * * * *
******** PRODUCT IDE	NTIFICATION ***	*****		
mp. 177	many or the following state of the state of			
TRADE NAME: UNSATURATED POLYESTER	GEL COAT IN MONO	OMER		
CAS NUMBER: MIXITURE PROD	NIOM CODE : D. A.	200		
CAS NUMBER: MIXTURE PRODUCT DESCRIPTION: RED ISO TOOLI	NC CET COM	108	•	•
CHEMICAL FAMILY: NA DOT	CTASS TAMMART	TIOHID		
CHEMICAL FAMILY: NA DOT MOLECULAR FORMULA: NA DOT	SHIP NAME: REST	SOLUTION	IIN1866	
MOLECULAR WEIGHT: NA	The state of the s	DODOTION	UN1000	
	r de la companya della companya della companya de la companya della companya dell			•
******** PRODUCT HAZA	RD SUMMARY ****	*****		
e de la companya de	A special property of the spec		1	
HMIS <code></code>	and the proper to be the set of the second s			
HEALTH: <2>	i a caring about a a c			
* CAUTION!	िवीर हो हमी अस्त अस्त			
* MAY BE HARMFUL IF SWALLOWED OR			•	
* MAY BE IRRITATING TO THE SKIN	EYES AND RESPIRA	TORY TRAC	r .	•
* MAY CAUSE ALLERGIC SKIN REACTI * HEATED MATERIAL MAY CAUSE THER				
THE CAUSE THE				
FLAMMABILITY: <3>				
* WARNING! FLAMMABLE LIQUID & V	APOR			
				•
REACTIVITY: <2>				
* CAUTION! UNSTABLE AT HIGH TEM	PERATURES		•	
SPECIFIC HAZARD: <>	W 4 (P) and			
******* IMPORTANT COMP	ONENTS *******	***		
THOUGH				_
INGREDIENT	CAS #	% C	SHA PEL	ACGIH-TLV
UNSATURATED POLYESTER RESIN	MESMINE	40 É0	F 0	. <u> </u>
STYRENE MONOMER [1]	MIXTURE	43 - 53	50 ppm	50 ppm
SILICON DIOXIDE	000100-42-5 007631-86-9 015625-89-5	49	ou ppm	20 ppm
ACRYLIC POLYMER	015625-89-5	1 - 6	M/V	10 mg/m³ N/A
	0-0020 03-J		M/ M	N/A
REMAINING COMPONENTS NOT DETERMINE	ED TO BE HAZARDO	TIS AND OP	UAZADDONE	

COMPONENTS PRESENT AT LESS THAN 1.0% (0.1% FOR CARCINGGENS)

[1] NOTE: This chemical subject to reporting requirements under SARA Title III, Section 313

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

	(-0-) 204	
	CHEMTREC 24-Hour Emergency	Telephone (800) 424-9300
	ANT MGR/SAFETY DIR	Date Printed: 05/03/07
·		Revision Date: 04/27/04 MSDS File ID: MSDSLET4
	e e e e e e e e e e e e e e e e e e e	Customer No:
Boyle Commence of the Commence	And the second of the second o	Warehouse No: 001
This MSDS compli	es with 29 CFR 1910.1200 (
	SECTION I - PRODUCT	
	NAC COMPU-COLOR GEN ic ID: Unsaturated Polyesi sation: Flammable Liquid Resin Solution, 3,	
	SECUTION IT INC.	
	SECTION II - HAZARDO	OUS COMPONENTS
METHYL MET (1) OSHA has form 50 ppm PEL form upon by repro The ACGIH rec	HACRYLATE 80-62-6 mally endorsed a styrene in or workplace exposure to st	None-Estb. None-Est 33-36 50 ppm TWA 50 ppm (1) 04-05 100 ppm 100 ppm dustry proposal for a vcluntary yrene. This proposal was agreed stry. The OSHA STEL is 100 ppm. styrene from 50 ppm to 20 ppm,
	SECTION III - PHY	STCAT. DATA
PROPERTY		
		MEASUREMENT
'	and the first of the second se	212 Deg F (100 Deg C) @ 760.00 mm Hg
vapor Pressure	For Methyl Methacrylate	35 mm Hg 68 Deg F (20 Deg C)
Specific Gravity		1.15 - 1.20 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1	
Erroporation Rate		
	Butylacrylate=1	3.1

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY-DIR Revision Date: 06/14/13

MSDS File ID: MSDSLET0

Customer No: Warehouse No: This MSDS complies with 29 CFR 1910.1200 (Hazard Communication). SECTION I - PRODUCT IDENTIFICATION Product Name: COR65-AA-202 ORTHO LAMINATING RESIN
General or Generic ID: Unsaturated Polyester Resin
Hazard Classification: Flammable Liquid SECTION II - HAZARDOUS COMPONENTS INGREDIENT CAS NO. PERCENT OSHA-PEL ACGIH-TL NOTE Unsaturated Polyester Base Resin See Index 58.00 None-Estb. None-Est tyrene 100-42-5 42.00 50 ppm TWA 50 ppm (1&2) (1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm. (2) HMIS Rating for Styrene: Health=2; Fire=3; Physical Hazard=2 SECTION III - PHYSICAL DATA _____ PROPERTY MEASUREMENT Initial Boiling Point For Styrene 293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg For Styrene 4.3 mm Hg Vapor Pressure 68 Deg F (20 Deg C) Specific Gravity 1.02-1.14 @ 77 Deg F (25 Deg C) ______ Vapor Density Air = 1

Slower than Ether

Evaporation Rate

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR/SAFETY DIR Date Printed: 06/05/12 Revision Date: 03/23/12

MSDS File ID: MSDSLET0

Customer No: Warehouse No: 0005 This MSDS complies with 29 CFR 1910.1200 (Hazard Communication). SECTION I - PRODUCT IDENTIFICATION Product Name: COR65-AA-202 ORTHOPHTHALIC RESIN General or Generic ID: Unsaturated Polyester Resin Hazard Classification: Flammable Liquid SECTION II - HAZARDOUS COMPONENTS CAS NO. PERCENT OSHA-PEL INGREDIENT ACGIH-TL NOTE Unsaturated Polyester Base Resin See Index 58.00 None-Estb. None-Est 7tyrene 100-42-5 42.00 50 ppm TWA 50 ppm (1&2) (1) OSHA has formally endorsed a styrene industry proposal for a voluntary 50 ppm PEL for workplace exposure to styrene. This proposal was agreed upon by representatives of the UPR industry. The OSHA STEL is 100 ppm. The ACGIH recently changed the TLV for styrene from 50 ppm to 20 ppm, and the STEL from 100 ppm to 40 ppm. (2) HMIS Rating for Styrene: Health=2; Fire=3; Physical Hazard=2 SECTION III - PHYSICAL DATA PROPERTY MEASUREMENT Initial Boiling Point For Styrene 293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg For Styrene 4.3 mm Hg 68 Deg F (20 Deg C) Vapor Pressure 1.02-1.14 Specific Gravity @ 77 Deg F (25 Deg C) Vapor Density Air = 1Evaporation Rate Slower than Ether

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

	/SAFETY DIR	Date Printed: Revision Date: MSDS File ID:	12/15/10
The state of the s		MSDS File ID: Customer No: Warehouse No:	- MODSHATO
		Warehouse No:	0001
This MSDS complies wit	n 29 CFR 1910.1200 (F	Mazard Communication).	And the second s
	SECTION I - PRODUCT	IDENTIFICATION	

Product Name: General or Generic ID: Hazard Classification:	Unsaturated Polvest	RTHO LAMINATING RESIN er Resin	e de la companya de l
		1	e e e e e e e e e e e e e e e e e e e
	SECTION II - HAZARDO	US COMPONENTS	
upon by representat	place exposure to st ives of the UPR indu changed the TLV for .00 ppm to 40 ppm.	dustry proposal for a vol yrene. This proposal was stry. The OSHA STEL is 1 styrene from 50 ppm to 20	s agreed
		=3; Physical Hazard=2	o ppm,
	SECTION III - PHY	=3; Physical Hazard=2	0 ppm,
		=3; Physical Hazard=2	0 ppm,
**************************************	SECTION III - PHY	=3; Physical Hazard=2 SICAL DATA	0 ppm,
PROPERTY Initial Boiling Point	SECTION III - PHY	=3; Physical Hazard=2 SICAL DATA MEASUREMENT 293.40 Deg F (145.22 De	0 ppm,
PROPERTY Initial Boiling Point Vapor Pressure	SECTION III - PHY For Styrene For Styrene	=3; Physical Hazard=2 SICAL DATA MEASUREMENT 293.40 Deg F (145.22 De @ 760.00 mm Hg 4.3 mm Hg	0 ppm,
PROPERTY	SECTION III - PHY For Styrene For Styrene	=3; Physical Hazard=2 SICAL DATA MEASUREMENT 293.40 Deg F (145.22 De @ 760.00 mm Hg 4.3 mm Hg 68 Deg F (20 Deg C) 1.02-1.14	0 ppm,

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, AN 55110-5145 (651) 481-6860

- ve-	THE PERIOD OF TH	eacy Telephone	(800) 424-9300	
	and the second s	A Company of the Comp	Revision Date: Issue Date: MSDS Pilc ID: Customer No: Warehouse No:	01/03/00 12/26/00 NSDSLBTO
This MSDS complies	with 29 CFR 1910.1	200 (Bazard Co	omunication).	
	SECTION I - PR	ODUCT IDENTIFI	CATION	
Product Name: General or Generic Hasard Classification Shipping Name:	COR75-AQ-010 ID: Dasaturated P On: Plaumable Lique Resin Solution PG III, Marine	CORROSION Olyester Resin uid 1 (Styrene Mon 2 Pollutant	, ISO RESIN	
	SECTION II - H	SARDOUS COMPO	ents	
Ingredient	CAS	NO. PERCENT	OEHA-PEL AC	31H-TL NOT
/	TO THE RESILL BES	Index 53.0	Wone-Path 15	.m.a. 514
(1) OSHA has formall 50 ppm PEL for w upon by represen The ACCIH recent	y emborsed a styre oriplace exposure tatives of the UPR ly changed the TLV m 100 ppm to 40 pp	me industry pr to styrene. T industry. Th for styrene f	mrs brobossi Ast) ppm (1) luntary sagreed
(1) OSHA has formall 50 ppm PEL for w woon by represen The ACGIH recent and the STEL fro	y endorsed a styre briplace exposure tatives of the UPR	me industry pr to styrene. I industry. Th for styrene f m. - PHYSICAL DAT	50 ppm TMA 50 Toposal for a vol his proposal was to 08HA STRL is 1 Tom 50 ppm to 20) ppm (1) Luntary Lagraed
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1) OSEA has formall 50 ppm PEL for w Upon by represent The ACGIH recent and the STEL fro PROPERTY	y endorsed a styre briplace exposure tatives of the UPR ly changed the TLV m 100 ppm to 40 pp SECTION III	me industry prito styrene. Tindustry. The for styrene fine. PRYSICAL DATE MEASURE 293.40	50 ppm TMA 50 Toposal for a vol his proposal was to 03MA STRL is 1 Tom 50 ppm to 20	untary agreed oo ppm.
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(1) OSHA has formall 50 ppm PEL for w wpon by represen The ACGIH recent and the STEL fro	y endorsed a styre portulate exposure tatives of the UPR ly changed the TLV as 100 ppm to 40 pp SECTION III	me industry prito styrene. Trindustry. The industry. The for styrene for styre	TOPOBAL for a volume proposal was so office proposal was so office of the control	ppm (1) Luntary agreed 00 ppm. ppm,
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Material Safety Data Sheet

MSDS No.

10576V1

WHMIS (Canada)



B-2 D-2A D-2B

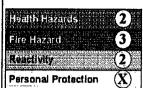
NFPA (USA) Fire



Reactivity

Specific-Hazard

HMIS (USA)



Protective Clothing



Section I. C	Chemical Product and Company I	dentification	
Trade vame	H771-BKB-15	Product Type	Polyester Resin Solution
CAS#	Mixture.	Synonym	None.
Chemical Name	Not applicable.	Chemical Formula	Not applicable.
Chemical Family	Aromatic.		
Material Uses	Used in the manufacture of thermoset plan	stic parts.	
TSCA	All ingredients are listed or compliant with	TSCA.	
DSL	All ingredients are listed or compliant with	the NSNR	
Colliervil Phone N		In Case of Emer CHEMTREC CANUTEC (gency C (US): 24 hours/7 days (800) 424-9300 Canada): 24 hours/7 days (613) 996-6666

	Name		CAS#	9/- hay 33/=i-al-e
			Сли п	Jo by Weight
1) styrene			100-42-5	34.0
•		,		

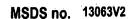
Section III. Hazards Identification.

Potential Acute Health Effects Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness. Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin irritant which may result in burning sensation. Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.

Effective Date: 11/10/2003

Supersedes Date: Not applicable.

Page: 1





WHMIS (Canada)



NFPA (USA) Fire

Health



Reactivity



HMIS (USA)

Protective clothing







B-2 D-2A D-2B

Specific hazard

8am-5pm (Central Time) Mon-Fri

Section 1. Chemical product and company identification R580-CUD-14 Trade name **Product type** Polyester Resin Solution Chemical family Aromatic. Material uses Used in the manufacture of thermoset plastic parts. AOC, LLC Manufacturer In case of emergency 950 Highway 57 East Collierville, TN U.S.A. 38017 CHEMTREC (US): 24 hours/7 days (800) 424-9300 Website: www.aoc-resins.com CANUTEC (Canada): 24 hours/7 days (613) 996-6666 Phone Number: (901) 854-2800

Section 2. Hazards identification					
)SHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).				
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion				
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.				
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Methyl Methacrylate: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 3 (not classifiable for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database. Other: Prolonged exposure may cause dermatitis. Repeated or prolonged overexposure to near lethal concentrations can produce liver and kidney damage.				

Material Safety Data Sheet

1. Chemical Product and Company Identification

Trade Name: Laminating Resin

Chemical Name: Unsaturated Polyester Resin-

Product Code: 4510 MVP Class 1 Fire Retardant Low Emission Resin

Manufacturer: Advance Coating Company
Emergency Telephone: (978) 874-5921

Chemtrec 24 Hrs. Emergency 800-424-9300

2. Composition/Information on Ingredients

Component CAS#	Exposure Limits	% by weight
and the second sequences are second to the contraction of the second sec	The second secon	s vermine and personal street and an experimental
Polyester Resin Proprietary	None assigned	68 ± 2%
Styrene Monomer 100-42-5	50.0 ppm ACGIH TWA	32 ± 2%
	100.0 ppm ACGIH STEL	-

3. Hazard Identification

Emergency Overview: WARNING! Flammable liquid. Causes eye irritation. May cause skin and upper respiratory tract irritation. May cause central nervous system depression. Do not take internally.

Relevant Routes of Exposure: Inhalation, eye and skin.

Signs and Symptoms of Acute Overexposure:

Exposure to styrene vapors from this product may cause irritation of the eyes, nose, and throat, and headache, nausea or vomiting. Liquid resin is irritating to eyes and skin. The use of respirators and a local exhaust system are mandatory around spray operations. Protective gloves and goggles are recommended when contact with liquid resin by spray or splash is possible. Use with adequate exhaust ventilation.

Signs and Symptoms of Chronic Overexposure:

No known chronic health effects have been observed with normal use of this product.

Potential Health Effects/Health Hazard Identification

Acute Exposure

Eye: Causes Irritation Skin: Causes Irritation

Ingestion: May cause irritation to the gastrointestinal track Inhalation: Vapors may cause irritation of mucous membrane.

Interplastic Corporation 1225 Willow Lake Blvd Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

ATTN: PLANT MGR	/SAFETY DIR	Date Print Revision I MSDS File	Date: 09/07/10 id: MSDSLT17	
This MSDS complies		Customer N Whse No:	0001	
INIA MADA COMPILES	with 29 CFR 1910.1200	ت جب سے در در در آباز کی گفا آباز کی جہ ب	ilcation Standard	
	SECTION I - Product	.Identification		
Hazard Classification:	CORVE8121LH-15 VI UN1866 Unsaturated Polyeste Flammable Liquid	NYL-ESTER RESIN r Resin		
4 and or majoritation trade.	SECTION II - Hazar	dana		_
	SECTION II - Hazar	dous components		
Ingredient	Cas No.	Percent OSHA-PEL	ACGIH-TLV NOTE	3
(1) OSHA ceiling value	100-42-5 edient xxxxxxxxx is 100 ppm and ACGIH commends a limit of 50	short term exposur	e limit (STEL) is	5
	SECTION III - Ph			-
Property Initial Boiling Point	For Styrene		Measurement 293.40 DEG F @ 760.00 MMHG	-
Vapor Pressure	For Styrene		4.3 MMHG (20.00 DEG C)	•
Vapor Density	Air = 1		3.6	
Specific Gravity			1.110 - 1.130 @ 77.00 DEG F (25.00 DEG C)	
Percent Non-volatiles			60-64%	•
Evaporation Rate			Slower than Ether	

The second secon

and the second s

SECTION IV - Fire and Explosion Data

Flash Point

88 DEG F for Volatile Component

Flammable

(Lowest Value of Styrene) Lower - 1.1% (Upper Value of Styrene)

Upper - 6.1%

Extinguishing Media: Aqueous film-forming foam considered most effective,

regular foam or carbon diaxide or dry chemical.

Hazardous Decomposition Products: May form toxic materials:, carbon dioxide and carbon monoxide, various hydrocarbons.

Special Firefighting Procedures -- Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter, especially if sprayed into containers of hot, burning liquid.

Wear self-contained breathing apparatus with a full face-piece operated in pressure demand or other positive pressure mode when fighting fires.

Unusual Fire & Explosion Hazards: Vapors are heavier than air and may travel along the ground or may be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. # zata

Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

SECTION V - Health Data

Permissible Exposure Level: Not established for product. See Section II.

Effects of Overexposure: - For Styrene

Eyes - Can cause severe irritation, redness, tearing, blurred vision.

- Skin Prolonged or repeated contact can cause moderate irritation, defatting, dermatitis.
- Breathing Excessive inhalation of vapors can cause masal irritation, dizziness, weakness, fatique, nausea, headache, possible unconsciousness, and even asphyxiation.
- Swallowing Can cause gastrointestinal irritation, nausea, vomiting, diarrhea. Aspiration of material into the lungs can cause chemical pneumonitis.

First Aid:

If on Skin: Thoroughly wash exposed area with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

- If in Eyes: Flush with large amount of water, lifting upper and lower lids occasionally. Get medical attention.
- If Swallowed: do not induce vomiting. Keep person warm, quiet and get medical attention. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.
- If Breathed: If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet, and get medical attention.

2-6

SECTION VI - Reactivity Data

dazardous Polymerization: Can occur.

Stability: Unstable.

Incompatibility: Avoid contact with: strong alkalies, strong mineral acids

and oxidizing agents.

Conditions to Avoid: Exposure to excessive heat or open flame; storage in open

containers; prolonged storage (6 months), storage above 38 DEG C (100 DEG F). Contanimation with oxidizing agents.

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide, Low Molecular Weight Hydrocarbons, Organic Acids.

SECTION VII - Spill or Leak Procedures

Steps to be Taken in Case Material is Released or Spilled:

Small Spill: Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to hood.

Large Spill: Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers.

Waste Disposal Method:

Small Spill: Allow volatile portion to evaporate in hood. Allow sufficient time for vapors to completely clear hood duct work. Dispose of remaining material in accordance with applicable regulations.

Large Spill: Destroy by liquid incineration in accordance with applicable regulations.

Contaminated absorbent should be disposed of in accordance with local, state and federal regulations.

SECTION VIII - Protective Equipment to be Used

Respiratory Protection: If TLV of the product or any component is exceeded, a NIOSH/MSHA jointly approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators under specified conditions. (See your safety equipment supplier.) Engineering or administrative controls should be implemented to reduce exposure.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Protective Gloves: Wear resistant gloves such as:, neoprene, nitrile rubber. Eye Protection: Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses (consult your safety equipment supplier).

Other Protective Equipment: Normal work clothing covering arms and legs.

SECTION IX - Special Precautions or Other Comments

- Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapors, liquid, and/or solid), all hazard precautions given in this data sheet must be observed.
- Overexposure to styrene has apparently been found to cause the following effects in laboratory animals: liver abnormalities, kidney damage, and lung damage.
- The information accumulated herein is believed to be accurate but is not warranted to be whether originating with Interplastic or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and sustable to their circumstances.

SECTION X - Supplement

The state of the s

- Styrene has been identified as a possible human carcinogen by the International Agency for Research on Cancer (IARC). The IARC determination is
 based on "limited evidence" in animals and other "relevant data." IARC
 concedes there is "inadequate evidence" on humans for its findings.
- The significance of these results for humans has not been established.

 Styrene is not expected to cause cancer in humans at concentrations below the recommended exposure standard or when appropriate industrial hygiene procedures are followed. Moreover, studies in humans exposed for long periods of time to styrene have not demonstrated any carcinogenic effects.
- At the conclusion of a major notice and comment rulemaking revising its air contaminants regulations, OSHA concluded that the "current evidence on styrene's carcinogenicity does not support its classification in the final rule as a carcinogen." In the same rulemaking, the National Institute for for Occupational Safety and Health (NIOSH) commented that there "seems to be little basis from experimental animal investigations or epidemiologic studies to conclude at this time that styrene is carcinogenic." The National Toxicology Program does not include styrene on its list of chemicals expected to be carcinogenic.

SECTION XI - Supplier Notification

This product has been formulated with a proprietary ingredient to reduce the "Hazardous Air Pollutant Content" required to be reported under the "Emergency Planning & Community Right to Know Act (EPCRA) & section 112(r) of the Clean Air Act". Please refer to Section II of this MSDS for the percent content of the product that still requires reporting under "EPCRA & section 112(r) of the Clean Air Act".

BASE RESIN CAS INDEX

The base resins indicated under Section II are identified by one or more of the following CAS numbers:

67859-89-6 49624-93-3 68511-26-2

113060-15-4	28572-30-7	58182-50-6
135108-89-3	28679-80-3	61224-63-3
141224-31-9	29011-83-4	62569-28-2
14807-96-6	29350-58-1	64386-66-9
149717-53-3	29403-69-8	67380-21-6
155122-62-6	29403-69-8	67386-67-0
21645-51-2	30110-00-0	67599-39-7
25037-66-5	30946-90-8	67712-08-7
25101-03-5	31260-98-7	67845-68-5
25215-72-9	31472-46-5	67939-08-6
25464-21-5	32505-78-5	67939-40-6
25609-89-6 35749-46-6 25749-49-9	32677-47-7 32762-75-7 36346-15-3	68002-44-8 68140-84-1
25987-82-0 26098-37-3	36425-15-7 36425-16-8	68140-88-5 68171-28-8 68238-98-2
26123-45-5	37339-47-2	68299-40-1
26265-08-7	37347-86-7	68492-68-2
26301-26-8	37999-57-8	68511-26-2
26588-55-6	42133-45-9	68585-94-4
26795-76-6	464920-01-2	68647-07-4
27342-37-6	52453-94-8	72259-64-4
27837-75-8	54228-09-0	81192-92-9
27863-48-6	56083-98-8	9003-20-7
28472-89-1	56083-99-9	9065-68-3
28516-30-5	57863-48-6	37625-93-7
	*	



Material Safety Data Sheet

MSDS no. 13378V1

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1)

WHMIS (Canada)



NFPA (USA) Fire



Reactivity

HMIS (USA)

Health hazards

Fire hazard

Reactivity

Personal protection





Protective clothing

B-2 D-2A D-2B

Specific hazard

Section I. Chemical Product and Company Identification Trade name R015-AAG-00 Product type Vinyl Ester Resin CAS# Not applicable. Synonym None. Chemical name Not applicable. Chemical Not applicable. formula Chemical Aromatic. family Material uses Used in the manufacture of thermoset plastic parts. TSCA All ingredients are listed or compliant with TSCA. DŠL All ingredients are listed or compliant with the NSNR. Manufacturer In case of emergency AOC, LLC CHEMTREC (US): 24 hours/7 days (800) 424-9300 950 Highway 57 East CANUTEC (Canada): 24 hours/7 days (613) 996-6666 Collierville, TN U.S.A. 38017 Phone Number: (901) 854-2800 8am-5pm (CST) Mon-Fri

	 ا شعبت	~ .
Name	CAS#	% by weight
1) Styrene	100-42-5	37.0

Section III. Hazards Identification.

Potential acute health effects

Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness. Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin irritant which may result in burning sensation. Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.

Potential chronic health effects **CARCINOGENIC EFFECTS:**

Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic. Lung effects have been observed in mouse studies following repeated exposure.

MUTAGENIC EFFECTS

Not available.

TERATOGENIC EFFECTS

Not available. Skin effects:

Prolonged exposure may cause dermatitis.

Effective Date: 08/17/2007

Supersedes Date: Not applicable.

Page: 1 OYSBD116



(Low Voc) J-b Material Safety Data Sheet

MSDS No. 11356V2

WHMIS (Canada)

NFPA (USA)

Fire

Health
Reactivity

Reactivity

Reactivity

Health hazards
Fire hazard

Reactivity

Personal protection

X

Protective Clothing

Fire hazard

Reactivity

Personal protection

X

Trade name	H541-AFB-20	Product type	Polyester Resin Solution		
CAS#	Mixture.	Synonym	None.		
Chemical name	Not applicable.	Chemical formula	Not applicable.		
Chemical family	Aromatic.				
Material uses	Used in the manufacture of thermoset plas	tic parts.			
TSCA	All ingredients are listed or compliant with TSCA				
DSL	All ingredients are listed or compliant with the NSNR.				

AOC, LLC
950 Highway 57 East
Collierville, TN U.S.A. 38017
Phone Number: (901) 854-2800
8am-5pm (CST) Mon-Fri

Section II.	Information on Hazardous Ingre	dients		
	Name		CAS#	% by weight
1) Styrene			100-42-5	35.0
-				

Section III. Hazards Identification. Potential acute health effects Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness. Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin irritant which may result in burning sensation. Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea.

Effective Date: 12/01/2004

Supersedes Date: 09/03/2004



Material Safety Data Sheet

For U.S. Only

MSDS no. 11356V4

WHMIS (Canada)

B-2 D-2A D-2B

NFPA (USA)
Fire

3
1

Reactivity

Protective clothing

Section 1. Chemical product and company identification Trade name H541-AFB-20 Polyester Resin Solution Product type Chemical family Aromatic. Used in the manufacture of thermoset plastic parts. Material uses AOC, LLC 950 Highway 57 East Manufacturer In case of emergency Collierville, TN U.S.A. 38017 CHEMTREC (US): 24 hours/7 days (800) 424-9300 Website: www.aoc-resins.com CANUTEC (Canada): 24 hours/7 days (613) 996-6666 Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri

Section 2. Hazards Identification					
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).				
Routes of entry Eye contact, Skin contact, Inhalation, Ingestion					
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowslness, loss of coordination, impaired judgement and general weakness.				
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.				

Section 3. Composition/information on ingredients						
	Name				CAS#	% by weight
1) Styrene					100-42-5	34.0
	e de sees de la company de		*.			
•				•		

Effective Date: 04/15/2008	Supersedes Date: 12/03/2007	•	Page: 1/5

Material Safety Data Sheet



MSDS no. 2289V5

WHMIS (Canada)



NFPA (USA) Fire

HMIS (USA)



Protective clothing





B-2 D-2	Health Specific hazard	Reactivity	E-hysical pazarde 22 d	
	 	· · · · · · · · · · · · · · · · · · ·		

Section 1. Che	mical product and company identific	ation	The same of the sa	mark man - stemping of makers of the
Trade name	H520-CKA-20		And And Andrews	Land W. Color
Product type	Polyester Resin Solution			
Chemical family	Aromatic.			
Material uses	Used in the manufacture of them	noset plastic parts.	And the Annual Control of the Annual Control	ANTERIOR MARKET
Manufacturer	AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 CANUTEC (Canada):	hours/7 days (800) 4 24 hours/7 days (613	24-9300) 996-6666

Section 2. Hazards ide	Section 2. Hazards Identification			
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).			
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion			
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.			
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Silica, Amorphous: Classified 3 (not classifiable for human) by IARC. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.			

Section 3. Composition/inform	ation on ingredien		
Name	V = 10	 CAS#	% by weight
Styrene Silica, Amorphous Cobalt Compounds		100-42-5 7631-86-9 Mixture	44.0 1 - 5 0.1 - 1



Page: 1

Revision Date: 01/24/2008

Print Date: 4/30/2009

MSDS Number: R0349999

Version: 1.2

AROPOL™ LB 6029-74 RESIN 137770

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Ashland i

Regulatory Information Number

1-800-325-3751

P.O. Box 2219

Telephone

614-790-3333

Columbus, OH 43216

Emergency telephone

1-800-ASHLAND

(1-800-274-5263)

Product name

AROPOL™ LB 6029-74 RESIN

Product code

137770

Product Use Description

No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, dark blue

WARNING! FLAMMABLE LIQUID AND VAPOR, MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Routes of exposure

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion



Page: 2

Revision Date: 01/24/2008

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Version: 1.2

AROPOL™ LB 6029-74 RESIN 137770

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, respiratory tract, skin, lung (for example, asthma-like conditions), liver, central nervous system, male reproductive system, auditory system

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, metallic taste, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, loss of coordination, confusion, liver damage

Target Organs

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals:, mild, reversible kidney effects, effects on hearing, respiratory tract damage (nose, throat, and airways), testis damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans:, mild effects on color vision, effects on hearing, respiratory tract damage (nose, throat, and airways), central nervous system effects

Carcinogenicity

Dimethylaniline has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. Dimethylaniline is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). There was no increase in cancer in rats exposed to styrene by inhalation. However, there was an increase in lung cancer in styrene-exposed mice. The relevance of the mouse lung cancer to humans is uncertain. Styrene did not cause cancer in mice in



Revision Date: 01/24/2008

Print Date: 4/30/2009

MSDS Number: R0349999

Version: 1.2

AROPOL™ LB 6029-74 RESIN 137770

studies in which the chemical was placed in the stomachs through a feeding tube, or in a study in which styrene was given by injection. Epidemiological studies do not provide a basis for concluding that styrene causes cancer. Styrene is listed as a possible human carcinogen by the International Agency for Research on Cancer (IARC).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
STYRENE	100-42-5	>=40-<50%
DIMETHYLANILINE	121-69-7	>=0.1-<0.5%

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4. FIRST AID MEASURES

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding evelids apart; seek immediate medical attention.

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Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended. TANGLA MET TANG TO DE ALCOLO A ARCHEST VANCOURS DA LANGUER DE CARLOS DE LA CARLOS DE CARLOS DE LA CARLOS DE LA

Inhalation specified, which but placed buckeyes all out to a fill a new our vestorist. If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Page 001

Date Prepared: 10/31/01

Date Printed: 11/01/01

MSDS No: 304.0376434-001.002

AROPOL Q 81301 T 13 RESIN

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity Product Name: AROPOL Q 81301 T 13 RESIN

General or Generic ID: UNSATURATED POLYESTER RESIN

Company

Ashland Ashland Distribution Co. &

Ashland Specialty Chemical Co.

P. O. Box 2219

Columbus, OH 43216

614-790-3333

Emergency Telephone Number:

1-800-ASHLAND (1-800-274-5263)

24 hours everyday

Regulatory Information Number:

1-800-325-3751

COMPOSITION/INFORMATION ON INGREDIENTS

redient(s)	~~~~	CAS Number	% (by weight)
POLYESTER RESIN		Trade Secret	65.0- 69.0
COBALT COMPOUNDS		100-42-	·5 32.0- 32.0 0.1- 0.1

HAZARDS IDENTIFICATION

Potential Realth Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Nahland

Page 001

Date Prepared: 03/28/00

Date Printed: 10/03/02

M 625-2

MSDS No: 304.0361592-001.001

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: N 625-2 6 LVCL4C (VR/6) C

General or Generic ID: UNSATURATED POLYESTER RESID

Company

Ashland Distribution Co. & Ashland Specialty Chemical Co. P. O. Box 2219 Columbus, OH 43216 614-790-3333

Emergency Telephone Number:

1-800-ASELAND (1-800-274-5263)

24 hours everyday

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Regulatory Information Number: 1-800-325-3751

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)

CAS Number t (by weight)

POLYESTER RESIN

STYRENE

Trade Secret 53.0-57.0
100-42-5 44.0-44.0

3. HAZARDS IDENTIFICATION

Potential Bealth Effects

Bye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

5kin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ashland

Page 001

Date Prepared: 03/03/05 Date Printed: 02/24/06

MSDS No: 304.0340429-001.005

MODIFIER C 10

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: MODIFIER C 10
Product Code: 501478
General on Carte General or Generic ID: UNSATURATED POLYESTER RESIN

Company

any
Ashland
Ashland Distribution Co. & 24 hours everyday
Ashland Specialty Chemical Co.
P. O. Box 2219
Columbus, OH 43216
614-790-3333

Emergency Telephone Number:
1-800-ASHLAND (1-800-274-5263)
24 hours everyday
Regulatory Information Number:
1-800-325-3751

The same for a few execution

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	will S man or secure of the second of the se	CAS	Number	% (by weight)
STYRENE PARAFFIN WAX	*			

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Interplastic Corporation 1225 Willow Lake Blvd Vadnais Heights, MN 55110-5145

24-Hour Emergency Telephone (800) 424-9300

MSDS File id: MSDSLT17 Customer No: Whee No: 0002 This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard) SECTION I - Product Identification Product Name: MVB8031M-15: MODIFIED VINYL ESTER RESIN: UN/NA Number: UN1866 General or Generic ID: Unsaturated Polyester Resin Hazard Classification: Flammable Liquid SECTION II - Hazardous Components Ingredient Cas No. Percent OSHA-PEL ACGIH-TLV NOTE Unsaturated Polyester Base Resin See Index 62-66 None-Estb. None-Est. Styrene Proprietary Ingredient XCCXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	ATTN: PLANT MGI	R/SAFETY DIR	<u> </u>	Casa a construction of the second	Date Print Revision D		09/11/08 08/08/08	
Customer No: When No: 0002 This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard) SECTION I - Product Identification Product Name: MYRS031LH-15 MODIFIED VINYL ESTER RESIN: UN/NA Number: UN1866 General or Generic ID: Unsaturated Polyester Resin Hazard Classification: Flammable Liquid SECTION II - Hazardous Components Ingredient Cas No. Percent OSHA-FEL ACGIH-TLV NOTE Unsaturated Polyester Base Resin See Index 62-66 None-Estb. None-Est. Styrene 100-42-5 31-34 50 ppm TWA 50 ppm (1) Proprietary Ingredient XCCXXXXXXX 3.0 100 ppm TWA 50 ppm (1) Proprietary Ingredient XCCXXXXXXX 3.0 100 ppm TWA 50 ppm (1) OSEA celling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute celling. SECTION III - Physical Data Property Unitial Boiling Point For Styrene Measurement 293.40 DEG F 6 760.00 MMHg Apor Pressure For Styrene 4.3 MMHg Apor Pressure For Styrene 4.3 MMHG Apor Density Air = 1 3.6 Section Deg C (25.00 DEG C) ercent Non-volatiles 62-664	· · · · · · · · · · · · · · · · · · ·	The state of the s			MSDS File	id: i	SDSLT17	
This MSDS complies with 29 CFR 1910.1200 (The Hazard Communication Standard) SECTION I - Product Identification Product Name: MVR8031LN-15 MODIFIED VINYL ESTER RESIN; UN/NA Number: UN1866 General or Generic ID: Unsaturated Polyester Resin Hazard Classification: Flammable Liquid SECTION II - Hazardous Components Ingredient Cas No. Percent OSHA-PEL ACGIH-TLV NOTE Unsaturated Polyester Base Resin See Index 62-66 None-Estb. None-Est. Styrene 100-42-5 31-34 50 ppm TWA 50 ppm (1) Proprietary Ingredient XOCCOCCXX 3.0 100 ppm TWA 50 ppm (1) (1) OSHA ceiting value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiting. SECTION III - Physical Data Property Initial Boiling Point For Styrene 4.3 MMHG (20.00 DEG C) Apor Density AIr = 1 3.6 Specific Gravity 1.110 - 1.130 77.00 DEG F (25.00 DEG C) ercent Non-volatiles			* 1:		Customer N	D:		
SECTION I - Product Identification Product Name: MVR8031LH-15: MODIFIED VINYL ESTER RESIN: UN1866: UN				The statement of the st	Whse No:		0002	
SECTION I - Product Identification Product Name: MVR8031LH-15: MODIFIED VINYL ESTER RESIN: UN1865: Seneral or Generic ID: Unsaturated Polyester Resin Flammable Liquid SECTION II - Hazardous Components Ingredient Cas No. Percent OSHA-PEL ACGIH-TLV NOTE Insaturated Polyester Base Resin See Index 62-66 None-Estb. None-Est. Styrene 100-42-5 31-34 50 ppm TWA 50 ppm (1) Proprietary Ingredient CONSUCCION 3.0 100 ppm TWA 50 ppm (1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling. SECTION III - Physical Data Property Nitial Boiling Point For Styrene 293.40 DEG F 6760.00 MMHG apor Pressure For Styrene 4.3 MMHG (20.00 DEG C) apor Density Air = 1 3.6 Propertic Gravity 1.110 - 1.130 6 77.00 DEG C) Percent Non-volatiles 62-664	This MSDS complies	with 29 CFR	1910.1200	(The Haz	ard Commun	lcation	ı Standard	· · · · · · · · · · · · · · · · · · ·
Product Name: MVR8031LH-15: MODIFIED VINYL ESTER RESIN: UN1866 General or Generic ID: Unsaturated Polyester Resin Hazard Classification: Flammable Liquid SECTION II - Hazardous Components Ingredient Cas No. Percent OSHA-PEL ACGIH-TLV NOTE Disaturated Polyester Base Resin See Index 62-66 None-Estb. None-Est. Styrene 100-42-5 31-34 50 ppm TWA 50 ppm (1) Proprietary Ingredient XCXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX								
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Ingredient Cas No. Percent OSHA-PEL ACGIH-TLV NOTE Unsaturated Polyester Base Resin See Index 62-66 None-Estb. None-Est. Styrene 100-42-5 31-34 50 ppm TWA 50 ppm (1) Proprietary Ingredient XXXXXXXXXXX 3.0 100 ppm TWA 50 ppm (1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling. SECTION III - Physical Data Property Initial Boiling Point For Styrene 293.40 DEG F 6760.00 MMHG Papor Pressure For Styrene 4.3 MMHG (20.00 DEG C) Paper Density Air = 1 3.6 Pecific Gravity 1.110 - 1.130 © 77.00 DEG F (25.00 DEG C) Percent Non-volatiles 62-66%	General or Generic ID:	: Unsaturate	1 Polyegte	r Deeln	1. (4)	*	er emald a c	of modernia to distribution
Ingredient Cas No. Percent OSHA-PEL ACGIH-TLV NOTE Unsaturated Polyester Base Resin See Index 62-66 None-Estb. None-Est. Styrene 100-42-5 31-34 50 ppm TWA 50 ppm (1) Proprietary Ingredient XXXXXXXXXXX 3.0 100 ppm TWA 50 ppm (1) OSHA ceiling value is 100 ppm and ACGIH short term exposure limit (STEL) is 100 ppm. NIOSH recommends a limit of 50 ppm, 8-hour TWA; 100 ppm 15 minute ceiling. SECTION III - Physical Data Property Initial Boiling Point For Styrene 293.40 DEG F (25.00 DEG C) apor Pressure For Styrene 4.3 MMHG (20.00 DEG C) apor Density Air = 1 3.6 Property 1.110 - 1.130 77.00 DEG F (25.00 DEG C) ercent Non-volatiles 62-66%								
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Initial Boiling Point For Styrene 293.40 DEG F ### 760.00 MMHG ##################################	100 ppm. NIOSH receiling.	commends a li	.00-42-5 DOCKDOOKOK ind ACGIH mit of 50	31-34 3.0 short ter ppm, 8-1	50 ppm TW 100 ppm TW cm exposure cour TWA; 1	limit 00 ppm	(STEL) 1.	8 e
### ##################################	100 ppm. NIOSH receiling.	commends a li	.00-42-5 DOCKDOOKOK ind ACGIH mit of 50	31-34 3.0 short ter ppm, 8-1	50 ppm TW 100 ppm TW cm exposure cour TWA; 1	limit 00 ppm	(STEL) 1.	8 e
3.6 pecific Gravity 1.110 - 1.130 77.00 DEG F (25.00 DEG C) ercent Non-volatiles 62-66%	100 ppm. NIOSH receiling.	commends a li	.00-42-5 DOCKDOOKOK ind ACGIH mit of 50	31-34 3.0 short ter ppm, 8-1	50 ppm TW 100 ppm TW mm exposure nour TWA; 1	limit 00 ppm Measu 293.4	(STRL) 1. 15 minut	8 e
pecific Gravity 1.110 - 1.130 77.00 DEG F (25.00 DEG C) ercent Non-volatiles 62-66%	100 ppm. NIOSH receiling. Property initial Boiling Point	SECTION For Styrene For Styrene	.00-42-5 DOCKDOOCK ind ACGIH mit of 50	31-34 3.0 short ter ppm, 8-1	50 ppm Tw 100 ppm Tw cm exposure cour TwA; 1	1imit 00 ppm Measu 293.4 @ 760	(STEL) 1. 15 minut	8 e
ercent Non-volatiles 62-66%	Property nitial Boiling Point apor Pressure	SECTION For Styrene For Styrene Air = 1	.00-42-5 EXCEMPIONIX ind ACGIH mit of 50	31-34 3.0 short ter ppm, 8-1	50 ppm TW 100 ppm TW m exposure cour TWA; 1	1imit 00 ppm Measu 293.4 @ 760 4.3 N	(STEL) 1. 15 minut	8 e
vaporation Rate	100 ppm. NIOSH receiling. Property initial Boiling Point apor Pressure apor Density	SECTION For Styrene For Styrene Air = 1	.00-42-5 EXCEMPIONIX ind ACGIH mit of 50	31-34 3.0 short ter ppm, 8-1	50 ppm TW 100 ppm TW m exposure cour TWA; 1	1imit 00 ppm Meass 293.4 @ 760 4.3 N (20.0	(STEL) 1. 15 minute 15 minute 16 DEG F 1.00 MMHG 17 DEG C) 1 - 1.130 1.00 DEG F	8 e
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Interplastic Corporation 1225 Willow Lake Blvd Vadnais Heights, MN 55110-5145

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24-Hour Emergency Telephone (800) 424-9300

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1	SAFETY DIR	Date Printe	d: 09/11/08
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يا و <u>نشريت</u> سياد در الماد الم	The second secon	Whse No:	0002
This MSDS complies w		200 (The Hazard Communi	
	SECTION I - Proc	luct Identification	
	ta de la composición del composición de la compo		
Product Name: UN/NA Number:	MVR8031LH-15 UN1866	etalan	RESIN
General or Generic ID:	Unsaturated Polye	ester Resin	Charles and the State of the St
Hazard Classification:			
	SECTION II - Ha	azardous-Components	
Ingredient	Cas No	Percent OSHA-PEL	ACGIH-TLY NOTE
	The second secon		
100 ppm. NIOSH rec ceiling.	commends a limit of	50 ppm, 8-hour TWA; 1	^^ 15 ' '
			00 ppm 15 minute
	SECTION III -	Physical Data	
	SECTION III -	Physical Data	
Property Initial Boiling Point	SECTION III -	- Physical Data	
Initial Boiling Point	SECTION III -		Measurement 293.40 DEG F @ 760.00 MMHG
	SECTION III -		Measurement 293,40 DEG F
Initial Boiling Point	SECTION III -		Measurement 293.40 DEG F @ 760.00 MMHG
Initial Boiling Point Vapor Pressure	SECTION III - For Styrene For Styrene		Measurement 293.40 DEG F @ 760.00 MMHG 4.3 MMHG (20.00 DEG C) 3.6
Initial Boiling Point Vapor Pressure Vapor Density	SECTION III - For Styrene For Styrene		Measurement 293.40 DEG F @ 760.00 MMHG 4.3 MMHG (20.00 DEG C)
Initial Boiling Point Vapor Pressure Vapor Density	SECTION III - For Styrene Air = 1		Measurement 293.40 DEG F @ 760.00 MMHG 4.3 MMHG (20.00 DEG C) 3.6 1.110 - 1.130 @ 77.00 DEG F
Initial Boiling Point Vapor Pressure Vapor Density Specific Gravity	SECTION III - For Styrene Air = 1		Measurement 293.40 DEG F @ 760.00 MMHG 4.3 MMHG (20.00 DEG C) 3.6 1.110 - 1.130 @ 77.00 DEG F (25.00 DEG C)

Interplastic Corporation 1225 Willow Lake Blvd Vadnais Heights, MN 55110-5145

	4-Hour Emergency Teleph	one (800) 424-9300	
er auch eine geben wegen	A 14 A 16 A 20 A 16 A 1	gradio della dell	
ATTN: PLANT MGR	/safety dir	Issue Date: Revision Dat	e: 01/27/04
		Customer No: Whse No:	: MSDSLT17
This MSDS complies	with 29 CFR 1910.1200	•	· · · · · · · · · · · · · · · · · · ·
	SECTION I - Product	Identification	
General or Generic ID Hazard Classification	MVR8031LH-15 UN1856 Unsaturated Polyaste: Flammable Liquid	Resin	
	cacator II - Hazar	ions Components	
	SECTION II - Hazer		့ သူသော်သည် ဆိုဆိုသူမှာ အေ အမေသည် အေ
Ingredient	Cas No.	Percent OSHA-PEL	ACGIH-TLV NOTE
Styrene Proprietary Ing 1) OSHA ceiling valu 100 ppm. NIOSH r ceiling.	Base Resin See Index 100-42-5 redient xxxxxxxxx e is 100 ppm and ACGIH ecommends a limit of 50		
	SECTION III - Ph	ABICAT DATA	
Initial Boiling Point	For Styrene		293.40 DEG F @ 760.00 MMHG
Vapor Pressure	For Styrene		4.3 MMHG (20.00 DEG C)
Vapor Density	Air = 1		3.6
Specific Gravity			1.110 - 1.130 @ 77.00 DEG F (25.00 DEG C)
Percent Non-volatiles	و المراقع المر و المراقع المر	· · · · · · · · · · · · · · · · · · ·	*
Evaporation Rate		9	lower than Ether

2-b

INTERPLASTIC CORPORATION 1225 Willow Lake Boulevard St. Paul, MN 55110-5145 (651) 481-6860

CHEMTREC 24-Hour Emergency Telephone (800) 424-9300

		y lelephone (800) 424-9300
ATTN: PLANT MGR	/SAFETY DIR	Date Printed: 03/30/09
	the second secon	Revision Date: 08/08/08
The second secon	A CAMPAGE	MSDS-File ID: MSDSLETO
and the second s	And the second of the second o	Customer No:
· ·	The same of the sa	MSDS File ID: MSDSLET0 Customer No: Warehouse No: 0022
This MSDS complies wit	h-29 CFR 1910.1200	(Hazard Communication).
	SECTION I - PRODUC	
Product Name:	STL66BO-249A	SHREBOARD RESTN
General or Generic ID:	Unsaturated Polye	ester Resin
Hazard Classification:	Flammable Liquid	A Company of the Comp
Shipping Name:	Resin Solution	3 IM1866 - PG TTT
on-pp-ing name:	Restri Solucion,	3, ON1000, FG 111
	SECTION II - HAZAI	RDOUS COMPONENTS
INGREDIENT	CAS NO	. PERCENT OSHA-PEL ACGIH-TL NOTE
(1) OSHA has formally of 50 ppm PEL for work upon by representation The ACGIH recently	100-42- endorsed a styrene kplace exposure to tives of the UPR ir changed the TLV fo	dex 61-64 None-Estb. None-Est -5 37.3 50 ppm TWA 50 ppm (1) industry proposal for a voluntary styrene. This proposal was agreed dustry. The OSHA STEL is 100 ppm. or styrene from 50 ppm to 20 ppm,
and the STEL from :	100 ppm to 40 ppm.	
	SECTION III - F	PHYSICAL DATA
PROPERTY		MEASUREMENT
Initial Boiling Point	For Styrene	293.40 Deg F (145.22 Deg C) @ 760.00 mm Hg
Vapor Pressure	For Styrene	4.3 mm Hg 68 Deg F (20 Deg C)
Specific Gravity		1.0-1.2 @ 77 Deg F (25 Deg C)
Vapor Density	Air = 1	3.6
Evaporation Rate		Slower than Ether

Material Safety Data Sheet

1. Chemical Product and Company Identification

Trade Name: Pigment Dispersion

Chemical Name: Unsaturated Polyester Resin

Synonyms:

Product Code: A-802 Black

Use:

Manufacturer: Advance Coating Company

Emergency Telephone: (978) 874-5921

2. Composition/Information on Ingredients

Component	CAS#	Exposure Limits	% by weight
Polyester Resin 2-Ethylhexanol	61224-63-3 104-76-7	None Established	80
2-Eurymexanor	104-70-7	None Established	20
	· · · · · · · · · · · · · · · · · · ·	A 1 Section of the se	en de la companya de La companya de la co
Component		EINECS#	RTECS#

3. Hazard Identification

Emergency Overview: WARNING! Combustible liquid. Causes eye irritation. May cause skin and upper respiratory tract irritation. May cause central nervous system depression. Aspiration hazard.

Relevant Routes of Exposure: Inhalation, eye and skin.

Signs and Symptoms of Acute Overexposure:

The low vapor pressure of this product suggests a low inhalation hazard potential at room temperature. However, heating or misting of 2EH may cause vapors that irritate the upper respiratory tract if inhaled. Symptoms may include burning sensation of the eyes, nose and throat and coughing. Inhalation of high vapor concentrations may cause headache, dizziness, nausea, anesthesia and Central Nervous System (CNS) depression. Contact with skin may cause irritation. Symptoms may include redness, dryness, burning and itching. Direct eye contact may cause severe irritation to the eyes causing burning, redness, tearing, pain and swelling of eye and surrounding tissue. Contact with vapors may cause a stinging sensation to the eyes. If swallowed, may cause nausea, vomiting, diarrhea, CNS depression and other gastric disturbances. Possible aspiration hazard. Aspiration of 2EH into the lungs may cause chemical pneumonia which may be life threatening.

Ashland

HETRON 625 P

Page 001 Date Prepared: 09/28/01 Date Printed: 02/16/02 MSDS No: 304.0128151-008.011

CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: HETRON 625 P FIRE RETENDENT Product Code: 563563

General or Generic ID: UNSATURATED POLYESTER RESIN

Company
Ashland
Ashland Distribution Co. 6
Ashland Specialty Chemical Co. P. O. Box 2219 Columbus, OH 43216 614-790-3333

Emergency Telephone Number: 1-800-ASHLAND (1-800-274-5263) 24 hours everyday

Regulatory Information Number: 1-800-325-3751

COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s) CAS Number 4 (by weight) POLYESTER RESIN Trade Secret 62.0-67.0 34.0 STYRENE 100-42-5

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing of vapor or mist is possible. Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).



B-2 D-2A D-2B

MSDS no. 14836V2

WHMIS (Canada)
NFPA (USA)
Fire

Health 2331

Specific hazard

Reactivity

HMIS (USA)

Flammability-

Personal protection (X

Protective clothing



Section 1. Che	mical product and company identification	The first and the second of th
Trade name	K130-PTJ-15	Marian gar
Product type	Polyester Resin Solution - Halogenat	ed
Chemical family	Halogenated	
Material uses	Fire Retardant Resin	
Manufacturer	AOC, LLC 950 Highway 57 East Collierville, TN U.S.A. 38017 Website: www.aoc-resins.com Phone Number: (901) 854-2800 8am-5pm (Central Time) Mon-Fri	In case of emergency CHEMTREC (US): 24 hours/7 days (800) 424-9300 CANUTEC (Canada): 24 hours/7 days (613) 996-6666

Section 2. Hazards identification			
OSHA status	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).		
Routes of entry	Eye contact, Skin contact, Inhalation, Ingestion		
Potential acute health effects	Eyes: Severe eye irritant which may result in redness, burning, tearing and blurred vision. Skin: Skin irritant which may result in burning sensation. Repeated or prolonged skin contact may cause dermatitis. Ingestion: Ingestion may result in mouth, throat and gastrointestinal irritation, nausea, vomiting and diarrhea. Inhalation: Inhalation of spray mist or liquid vapors may cause upper respiratory irritation and possible central nervous system effects including headaches, nausea, vomiting, dizziness, drowsiness, loss of coordination, impaired judgement and general weakness.		
Potential chronic health effects	CARCINOGENIC EFFECTS: Styrene: Classified A4 (not classifiable for human or animal) by ACGIH. Classified 2B (possible for human) by IARC. An increased incidence of lung tumors was observed in mice from a recent inhalation study. The relevance of this finding is uncertain since data from other long-term animal studies and from epidemiology studies of workers exposed to styrene do not provide a basis to conclude that styrene is carcinogenic to humans. Lung effects have been observed in mouse studies following repeated exposure. Cobalt Compounds: Classified A3 (proven for animal) by ACGIH. Classified 2B (possible for human) by IARC. MUTAGENIC or TERATOGENIC EFFECTS: No known effect according to our database.		

Name	The state of the s		CAS#	% by weight
			·	/o by Wolght
) Styrene	. •	-	100-42-5	32.5
) Triethyl Phosphate) Cobalt Compounds			78-40-0 Mixture	1-5 0.1-1



Material Safety Data Sheet

HI-HIDE RED TOOLING

MSDS No.

Validation Date

Product Code

Internal Code

Not availab

Product and Company Identification

Product Trade Name

HI-HIDE RED TOOLING

Synanymi

HI-HIDE RED TOOLING 5789R90015

HI-HIDE RED TOOLING

Chemical Faulty

Not available.

Packaging

Not available.

Product Type

Not avallable.

Product Use

Not available.

Description

GC HI HIDE LF

23 March 2001

5783R90015

Not available.

TLNG

Manufactured/Supplied

VALSPAR - ELKHART 28335 CLAY ST. ELICHART IN 46517

Deviime Phone: 219-522-1052 Emergancy Phone: 800-424-9300

Composition and Information on Hazardous Ingredients

Introdient Name	CAS#	% bý Weight	Exposure Limits	Vaper Pressure	LEL-U
1) STYRENE MONOMER	100-42-5	40-60	ACCH (United States,	1.3 kPa (9.5	Not availe
			1894). Sidn	mmHp) (@	
1	•	•	TWA: 20 ppm	20°C)	
)			ACGIH (United States,		
			1994). 8idn	•	
		\$	STEL: 40 ppm		
			OSHA (United States, 1989).		
			TWA: 60 ppm		
			OSHA (United States,		
	•		1900).		
			STEL: 100 ppm		
			OSHA (United States,		
		, ,	1989).		_
			CEIL: 200 ppm	•	•
			NIOSH (United States,		
	* * * * * * * * * * * * * * * * * * *		1964).	•	
•	,		TWA: 50 ppm		
	The same time to the same		NIOSH (United States,	•	
		•	1004).		
2) METHYL METHACRYLATE	00.00		STEL: 100 ppm		
CHIEFITT METHACKIDATE	80-62-6	1.5-4	ACCIH (United States,	3.9 kPs (29	Not availa
		•	1990). TWA: 100 ppm	mmHg) (@	
			OSHA (United States,	20°C)	
•			1986).		
			TWA: 100 ppm	•	
	e de la companya de l		MOSH (United States,		
	e e e		1900.		
and the same and t			- TWA: 100 ppm	•	
3) AMORPHOUS SILICA	7631-88-9	1.5-4	MOSH (United States,	Not available.	Not availal
			1994).	- 445 MANUMAGE	1400 01000
			TWA: 6 mp/m²		
4) HYDRATED ALUMINA	21645-51-2	1.5-4	ACGIN (United States,	Not available.	Not availal
	•	,*	1994).		
			TWA: 2 mg/m²		
)) TITANIUM DIOXIDE	13463-67-7	. O-1	ACGIH (United States,	Not available.	Not availa
			1996).		
			TWA: 10 mg/m²		
•			OSHA (United States,		

B000 4

				Page: 2/6
			1989). Notes: Total	•
) CYCLOHEXANONE	108-94-1	0-1	TWA: 10 mg/m ² ACGIN (United States,	0.3 kPa (2 Not evai
		- •	1806). Škin	mmHa) (Ø
			TWA: 25 ppm	20°C)
•	•		OSHA (United States, 1989). Bidn	
•		in a second of again,	TWA: 25 ppm	
			NIOSH (United States,	
· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	1894). Šidn TWA: 25 ppm	The second secon
) TRIMETHYLBENZENE,1,2,4	SCMER 96-63-6	0-1	NOSH (United States,	0.6 kPa (4,5 Not avei
	Concern a separate of the		1094). TWA: 25 ppm	mmHg) (@ 20°C)
lote: See section & for occupations		11 6-1 7-700	,	
des 264 decrep 9 fol decribaneus	a collection and the section	I TY JOS TYCZGYTY	NA WIN WINE.	
3. Hazards Identi	fication			
Primary Hazards and Critical	: WARNING!	- Control of the Cont		
Mecis	CONTAINS MATERIA	L WHICH CAL	SES DAMAGE TO THE FOLL	DWING ORGANS: LUNGS, L
* 1.45 · 10 · 10 · 10 · 10 · 10 · 10 · 10 · 1	SKIN, EYES, CENTRA FLAMMABLE LIQUID		SYSTEM, EYE, LENS OR COP	
•	VAPOR MAY CAUSE	FLASH FIRE		•
The second secon	MAY BE HARMFUL IF		Tipes	The state of the s
•	MAY CAUSE EYE AN			
	POSSIBLE CANCER I	HAZARD		A CONTRACTOR OF THE CONTRACTOR
	CONTAINS MATERIA	L WHICH MAY	CAUSE CANCER BASED ON	ANIMAL DATA
. *	Risk of cancer depend	B ON GURBSON G	nd level of exposure. Keep aw ning vapor or mist. Avoid proto	ey trom heet, aparks and figh mond or repeated evoluct will
	Keep container closed			
			i Scockritis Astunismus. Atemu s	hereughiy alter handiina.
hysical/Chemical basards	: Flammable.	· con cay was	geodrais Asumstoni Assiu s	noroughly after handling.
	: Flammable. : Harmful by inhalation.) Stracture to Astronomer Assists I	neroughly after handling.
	: Flammable. : Harmful by inhabition. [rritating to eyes and s	kin.	Supplies Asturismus. Again a	noroughly after handling.
	: Flammable. : Hammal by inhalation. intenting to eyes and si Possible risks of irrove	idn. Iraible effects.		noroughly after handling.
Human Hankh Hayards	: Flammable. : Harmful by inhabition. [rritating to eyes and s	idn. Iraible effects.		neroughly after handling.
Human Menith Hazards Existrologicated Hispards	Planmable. Hamful by inhalation. Irritating to eyes and s Possible risks of irreve May cause sensitization. Not applicable.	idn. Iraible effects.		noroughly after handling.
Human Health Hazards	Planmable. Hamful by inhalation. Irritating to eyes and s Possible risks of irreve May cause sensitization. Not applicable.	idn. Iraible effects.		nereughly after handling.
Physical/Chemical hazards Hannes Health Hazards Estylrosumental Hazards 4. First Aid Meas Eye contact	Planmable. Hermful by inhalation. Intention to eyes and a Possible risks of irreve May cause serellization. Not applicable. UITOS	idn. Iraible effects. In by skin contr	ict. It 15 minutes, occasionally (l	
Human Health Hazards Externamental Hazards 4. First Aid Meas Eye contact	Planmable. Hamful by inhalation. Infating to eyes and s Possible risks of Irreve May cause sensitization. Not applicable. UITOS Flush with planty of winfation persists, see	idn. Iraible effects. In by skin contr Iraible for at lag- ik medical atte	ict. st 15 minutes, occasionally II ntion.	Ting the upper and lower sy
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invironmental Hazards 4. First Aid Meas Eye contact thin contact	representation of the second s	idn. In by skin control In by skin control In by skin control In by skin control In by skin control	ict. It 15 minutes, occasionally li ntion. Is contaminated clothing and	lting the upper and lower ey shoes. If irritation peraists,
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Innian Health Hazards A. First Aid Meas Eye contact Chalacter Chalacter	Planmable. Harmful by inhalation. Intention to eyes and a Possible risks of irreve May cause sensitization. Not applicable. Flush with planty of winfitation persists, see Wash with soop and medical attention. Remove to fresh air. Wash out mouth with	idn. Iraible effects. In by skin control Iraible effects. Iraible effetts.	st 15 minutes, occasionally ill ntion. rs contaminated clothing and g, edminister artificial respire n is conscious. Never give a	Ting the upper and lower ey shoes. If irritation persists, tion and seek medical atten mything by mouth to an
funian Health Hazards Existrolamental Hazards 4. First Aid Meas Eye contact Ship contact Shipletion	Planmable. Harmful by inhalation. Intention to eyes and a Possible risks of irreve May cause sensitization. Not applicable. Flush with planty of winfitation persists, asset which soop and medical attention. Remove to fresh air. Wash out mouth with unconscious person.	idn. Iraible effects. In by skin control Iraible effects. Iraible effetts.	st 15 minutes, occasionally li ntion. rs contaminated clothing and g, edminister artificial respire	Ting the upper and lower ey shoes. If irritation persists, tion and seek medical atten mything by mouth to an
Human Health Hazards 4. First Aid Meas Eve contact Ship contact shapedon agestion	Planmable. Harmful by inhalation. Intesting to eyes and a Possible risks of irreve they cause sensitization. Not applicable. Flush with planty of winfitation persists, see: Wash with soap and medical attention. Remove to fresh air. Wash out mouth with unconscious person. medical attention.	idn. Iraible effects. In by skin control Iraible effects. Iraible effetts.	st 15 minutes, occasionally ill ntion. rs contaminated clothing and g, edminister artificial respire n is conscious. Never give a	Ting the upper and lower ey shoes. If irritation persists, tion and seek medical atten mything by mouth to an
funian Health Hazards Existrolamental Hazards 4. First Aid Meas Eye contact Ship contact Shipletion	Planmable. Harmful by inhalation. Intesting to eyes and a Possible risks of irreve they cause sensitization. Not applicable. Flush with planty of winfitation persists, see: Wash with soap and medical attention. Remove to fresh air. Wash out mouth with unconscious person. medical attention.	idn. Iraible effects. In by skin control Iraible effects. Iraible effetts.	st 15 minutes, occasionally ill ntion. rs contaminated clothing and g, edminister artificial respire n is conscious. Never give a	Ting the upper and lower ey shoes. If irritation persists, tion and seek medical atten mything by mouth to an
Environmental Hazards 4. First Aid Meas Eye contact Chaladon ingestion	Planmable. Hamfut by inhabition. Infating to eyes and signification of eyes and signification of the plants of the plants of the plants of winfation persists, see which with soop and medical attention. Wash out mouth with unconscious person. medical attention. Plantings In case of fire, use web	idn. Irsible effects. In by skin containing ster for at legal attending attending attending to the steril person of induction of the steril person of induction of the steril person of the steril per	st 15 minutes, occasionally ill ntion. rs contaminated clothing and g, edminister artificial respire n is conscious. Never give a	iting the upper and lower sy shoes. If irritation persists, ition and seek medical stien inything by mouth to an a physician. Seek immedia
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Form Approved, OMB No. 2050-0039

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220982 1103681 Please print of type. (Form designed for use on elite (12-pitch) typewriter. Form Approved. OMB No. 2050-0039 UNIFORM HAZARDOUS: 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone NJD087092391 (877) 577-2669 WASTE MANIFEST 5. Generally's Name and Mailing Address Generator's Site Address (if different than mailing address) Ocean Yacht RTE 563 Milepost 23 RTE 563 Hilepost 23 REEKSTURN NJ 08215 (609)965-4016 Generator's Phone: HEERSTORN NJ 08215 (609)965-4016 6. Transporter 1 Company Name U.S. EPA ID Number REPUBLIC ENV SYS (TRANS GROUP) LLC PAD982661381 7. Transporter 2 Company Name U.S. EPA ID Number 8. Designated Facility Name and Site Address U.S. EPA ID Number REFUBLIC ENV SYS (PA) LLC 2869 SANDSTONE DRIVE Facility's Phone: MRIFTELD, PA 19440 (215) 822-8995 Mark Maria PAD085690592 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 10. Containers 11. Total 13. Waste Codes and Packing Group (if any)) Quantity Wt./Vol. Type ROH-DOT/HOR-ACRA RESULATED LIQUID (USED UIL) GENERATOR DM 1200 BALLYTA MASTE FLAMABALE LIQUIDS, M.O.S. TADRESTYE, ACCTORET 3.761 0001 1003 KU RO(100) DH 4 1600 UNIZOU MASTE GASOLINE (BENZENE) 3 PELL BU(10) DOOL BUIS DM P 400 14. Special Handling Instructions and Additional Information (1) 439388-00 - USED OIL (2) 439389-00 - ERG(128) MASTE FLAMMABLE LIBU (3) 439760-00 - ERG(128) BASULIRE /MOTER GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true. Generator's/Offeror's Printed/Typed Name Jor mai International Shipments Import to U.S. Port of entry/exit: Transporter signature (for exports only): Date leaving U.S. 17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name. Signature Kass Transporter 2 Printed/Typed Name K 18. Discrepancy 18a. Discrepancy Indication Space Quantity Residue Partial Rejection Full Rejection Manifest Reference Number 18b. Alternate Facility (or Generator) U.S. EPA ID Number Facility's Phone 18c. Signature of Alternate Facility (or Generator) Month 19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) R141 Designated Facility Owner o fification of receipt of hazardous materials covered by the manifest except as noted in Item 18a ature

DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 UNIFORM HAZARDOUS 1. Gerierator ID Number 2. Page 1 of 3. Emergency Response Phone NJD087092391 (609) 965-11616 **WASTE MANIFEST** 1 Generator's Name and Mailing Address erator's Site Address (if different than mailing address) Ocean Yacht Ocean Yacht Route 563 Route 563 (609) 965-4616 Millepost 23 Weekstown. NJ 08215-Weekstown, NJ 08215-6. Transporter 1 Company Name PAD014286009 Armstrong Environmental Serv 7. Transporter 2 Company Name U.S. EPA ID Number VAID (D) Hukill Chemical Corporation U.S. EPA ID Number 7013 Krick Road OHD001926740 Bedford, Ohio 44146-(440)232-9400 Facility's Phone: 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 10. Containers 11. Total 12. Unit : 13. Waste Codes and Packing Group (if any)) Quantity Wit Mal Used Oil. D.O.T. Non-regulated per 40 & 49 DM CFR Oll and absorbents, nonregulated per 40 & 49 DM G H CFR 220 UN1993, Waste Flammable Liquids, n.o.s., 0001 F003 DM 440 (Acetone), 3, PG II. 14. Special Handling Instructions and Additional Information HCC 1087946 P#18433 P#19071 2 128 P#17749 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and fam the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262:27(a) (if I am a large quantity generator) or (b) (iif am a small quantity generator) is true Generator's/Offeror's Printed/Typed Name 120 02 Port of entry/exit: Transporter signature (for exports only): Date leaving U.S. 17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name Loren Book 20 O9 Transporter 2 Printed/Typed Name 18a. Discrepancy Indication Space Quantity Type Residue Partial Rejection Full Rejection Manifest Reference Number 18b. Alternate Facility (or Generator) U.S. EPA ID Number 18c. Signature of Alternate Facility (or Generator) Month Day 19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed/Name Mealy NN EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY & CENERAL

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 UNIFORM HAZARDOUS 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone 4. Manifest Tracking Number WASTE MANIFEST (609) 965-4616 NJD087092391 5. Generator's Name and Mailing Address Ocean Yacht Ocean Yacht Route 563 Route 563 Generators Phone: 5-4616 Millepost 23 -Weekstown, 08215-NJ 6. Transporter 1 Company Name Weeks LOWN . MJ U.S. EPA ID Number Edward Armstrong and Sons, 1 PAD014286009 7. Transporter 2 Company Name
Hukill Chemical Corporation U.S. EPA ID Number OHDOO 1 926740 8. Designated Facility Name and Site Address Hukill Chemical Corporation U.S. EPA ID Number 7013 Krick Road OHD001926740 Bedford, Ohio 44146-(440)232-9400 Facility's Phone: 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 10. Containers 11. Total 12. Unit 13. Waste Codes and Packing Group (if any)) нм Quantity Wt./Vol. No. Type UN1993. Waste Flammable Liquids. n.o.s.. D001 F003 GENERATOR DM G 330 (Acetone), 3, PG II, Ø Used Oil, D.O.T. Non-regulated per 40 & 49 55 DH 2 CFR 14. Special Handling Instructions and Additional Information HCC 1085896 128 P#17749 P#18433 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true erator's/Offeror's Printed/Typed Name Month clor 17 Export from U.S. Port of entry/exit: Transporter signature (for exports only): Date leaving U.S. 17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name oran Took 12 17 08 18a. Discrepancy Indication Space __ Full Rejection Partial Rejection Manifest Reference Number: 18b. Alternate Facility (or Generator) U.S. EPA ID Number Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day 19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a Printed/Typed Name EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO SEPTEMATOR

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DESIGNATED FACILITY TO GENERATOR

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Charles Mary View P. Committee State

lease print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 UNIFORM HAZARDOUS 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone **WASTE MANIFEST** 001854690 NJD08709239 (609) 965-4616 Generator's Site Address (if different than mailing address) 5. Generator's Name and Mailing Address Ocean Yacht Ocean Yacht Route 563 Route 563 (609) 965-4616 Millepost 23 Weekstown, NJ 08215-Weekstown. No 6. Transporter 1 Company Name U.S. EPA ID Number Edward Armstrong and Sons. I PAD014286009 7. Transporter 2 Company Name U.S. EPA ID Number Hukill Chemical Corporation
8. Designated Facility Name and Site Address Hukill Chemical Corporation OHD001926740 U.S. EPA ID Number 7013 Krick Road OHD001926740 Bedford, Ohio 44146-The second section is the second (440)232-9400 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 9a 10. Containers 11. Total 12. Unit and Packing Group (if any)) НМ 13. Waste Codes Quantity Wt./Vol. Waste Flammable Liquid, n.o.s. (Contains D001 F003 Acetone,), 3, UN1993, PG II DM G 750 GENERA Used Oil, D.O.T. Non-regulated per 40 & 49 CFR DH 100 1 14. Special Handling Instructions and Additional Information 128 P#17749 HCC ID83477 15. 'GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged. marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the weste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true Generator's/Offeror's Printed/Typed Name 16. International Shipm Export from U.S. Port of entry/exit: Transporter signature (for exports only) Date leaving U.S. 17. Transporter Acknowledgment of Receipt of Materials Transporter 1 Printed/Typed Name SHEDT ZED 18a. Discrepancy Indication Space Quantity Residue Partial Rejection Full Rejection 18b. Alternate Facility (or Generator) U.S. EPA ID Númber 1.4000 Facility's Phone: 18c. Signature of Alternate Facility (or Generator) Month Day 19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18 EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

NAME OF STREET

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EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Printed/Typed Name

DESIGNATED FACILITY TO GENERATE

No. 4352 P. 3

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(810) 955-7218 Egg Harbor City; NJ 0821	5- j			St. Lo City,			
5. Transporter 1 Company Name				U.S. EPA ID	Number	·	· · · · · · · · · · · · · · · · · · ·
Armstrong Environmental Serv					014286	009	
7. Transporter 2 Company Name				U.S. EPA ID			
Z Hukill Chemical Corporation 8. Designated Facility Name and Site Address RUKITI Chemical Cor	'corez	วัก		U.S. EPA ID	001926	5740	
7013 Krick Road		···.			001926	5740	
Bedford, Ohio 44146	· *						
Facility's Phone: (440)232-9400		40.0.1.			T	· · · · · · · · · · · · · · · · · · ·	
ga 9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Conteir No.	Type	11. Total Quantity	12. Umit Wt./Vol.	13. Wa	ste Codes
Weste Flammable Liquid, n.o.s. (Contains	- (117		1_	D001	7003
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Exporter, I certify that the contents of this consignment conform to the terms of the attached EPAAc I certify that the waste minimization statement identified in 40 CFR 252.27(a) (if I am a large quantity	transpelent y generator) or	of Consent. (b) (if i am a smell	quentity gan	erator) la true.	•		
Generatory Official Printed Printed Plans Report	Signature.					Month	Day
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188. Discrepancy Indication Space		Residue	V	Pertial Rej	ection		Full Rejection
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18b. Alternate Facility (or Generator)				U.S. EPA ID N	umber		
Facility's Phone:				1			
18c. Signature of Alternate Facility (or Generator)		***************************************		1	۲٠.	Month	Dây
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19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, dia	poset, and recy	aling systems)			<u> </u>	· · ·	
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20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the n	nanifest except	as noted in Item 1	((1				- · · · -
Printed Typed Name Che A Niede	Signature C)(· · · · · · · · · · · · · · · · · · ·	Month	Day \
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W		ord, Ohio 4414	16-							
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8. Da	Hukill Chemcia	ial Corp. She Address Hukill Chemical Corporation					ОНДО01926740						
	ity's Phone:	7013 Krick Road Bedford, Ohio 44146- (440)232-9400				U.S. EPA ID Number QHD001926740							
9a. HM	9b. U.S. DOT Description (Inc) and Packing Group (if any))	uding Proper Shipping Name, H	ezard Class, ID Number,	/	10. Conta	Iners Type	11. Total Quantity	12. Unit WLAM	13.	Waste Code	8		
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DESIGNATED FACILITY TO GENERATOR

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

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Form Approved, OMB No. 2050-003

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	20. Designated Facility Owner Printed/Typed Name	or Operator: Certification of receipt of	hazardous materials covere		fest excep	t as noted in Item	18a			- 14-	oth Dev	Ven
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EP/	A Form 8700-22 (Rev. 3-05)	Previous editions are obsolete:	· · · · · · · · · · · · · · · · · · ·					DESI	GÑATEL	FACILIT	HOOE	ERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039 1. Generator ID Number 2. Page 1 of 3. Emergency Response Phone UNIFORM HAZARDOUS 001213490 WASTE MANIFEST NJD087092391 336-855-7925 5. Generator's Name and Mailing Address s Site Address (if different than mailing address) Ocean Yacht PO Box 312 Rte. 563 Milepost 23 Egg Harbor, NJ 08215 Egg Harbor City, NJ 08215 610-384-8690 Generator's Phone: 6. Transporter 1 Company Name U.S. EPA ID Number ECOFLO, Inc NCD980842132 7. Transporter 2 Company Name U.S. EPA ID Number NJD07/624976 LAPAGE Designated Facility Name and Site Addréss
 ECOFLO, Inc. U.S. EPA ID Number 2750 Patterson St. Greensboro, NC 27407 336-855-7925 NCD980842132 Facility's Phone: 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, 10. Containers 11. Total 12. Unit 13. Waste Codes and Packing Group (if any)) HM Quantity Wt/Vol No. Type RQ, Waste Flammable liquids, nos (acetone, resin) DOO'T FOO3 GENERATOR X 3. UN1993. II (D001) 118AAE-01- //8AAD a 14. Special Handling Instructions and Additional Information 1 L/ Acetone/Resin (X x 55dm) ERG#128 - HV-F0106-M306 15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quartify generator) or (b) (if I am a small quantity generator) is true Generator's/Offeror's, Printed/Typed Name Month Export from U.S. Port of entry/exit: Transporter signature (for exports only): Date leaving U.S.: 17. Transporter Acknowledgment of Receipt of Materials fransporter 1 Printed/Typed Name Month Day Year Iscrepancy Indication Space ___ Type Quantily Partial Rejection Residue __ Full Rejection Manifest Reference Number: nate Facility (or Generator) U.S. EPA ID Number of Alternate Facility (or Generator) Month aste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Signature ery el 15) Previous editions are obsolete.